

OFFSHORE OIL AND GAS LEASING IN 181 AREA

HEARING BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE ONE HUNDRED NINTH CONGRESS

SECOND SESSION

ON

S. 2253

TO REQUIRE THE SECRETARY OF THE INTERIOR TO OFFER CERTAIN
AREAS OF THE 181 AREA OF THE GULF OF MEXICO FOR OIL AND
GAS LEASING

FEBRUARY 16, 2006



Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE

27-370 PDF

WASHINGTON : 2006

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

COMMITTEE ON ENERGY AND NATURAL RESOURCES

PETE V. DOMENICI, New Mexico, *Chairman*

LARRY E. CRAIG, Idaho	JEFF BINGAMAN, New Mexico
CRAIG THOMAS, Wyoming	DANIEL K. AKAKA, Hawaii
LAMAR ALEXANDER, Tennessee	BYRON L. DORGAN, North Dakota
LISA MURKOWSKI, Alaska	RON WYDEN, Oregon
RICHARD M. BURR, North Carolina,	TIM JOHNSON, South Dakota
MEL MARTINEZ, Florida	MARY L. LANDRIEU, Louisiana
JAMES M. TALENT, Missouri	DIANNE FEINSTEIN, California
CONRAD BURNS, Montana	MARIA CANTWELL, Washington
GEORGE ALLEN, Virginia	KEN SALAZAR, Colorado
GORDON SMITH, Oregon	ROBERT MENENDEZ, New Jersey
JIM BUNNING, Kentucky	

ALEX FLINT, *Staff Director*

JUDITH K. PENSABENE, *Chief Counsel*

BOB SIMON, *Democratic Staff Director*

SAM FOWLER, *Democratic Chief Counsel*

FRANK MACCHIAROLA, *Counsel*

PATTY BENEKE, *Democratic Senior Counsel*

CONTENTS

STATEMENTS

	Page
Bingaman, Hon. Jeff, U.S. Senator from New Mexico	5
Burton, R.M. "Johnnie", Director, Minerals Management Service, Department of the Interior	5
Domenici, Hon. Pete V., U.S. Senator from New Mexico	1
Gravitz, Michael, Oceans Advocate, U.S. Public Interest Research Group, Washington, DC	33
Landrieu, Hon. Mary L., U.S. Senator from Louisiana	1
Martinez, Hon. Mel, U.S. Senator from Florida	15
Menendez, Hon. Robert, U.S. Senator from New Jersey	23
Nelson, Hon. Bill, U.S. Senator from Florida	12
Parker, Timothy S., Senior Vice President, Exploration and Production, Do- minion Exploration and Production, Houston, TX	41
Skains, Thomas E., Chairman, President and CEO, Piedmont Natural Gas Company, Charlotte, NC	46
Talent, Hon. James M., U.S. Senator from Missouri	21
Thomas, Hon. Craig, U.S. Senator from Wyoming	2
Wilson, Stephen R., Chairman, CEO and President, CF Industries Holdings, Inc., Long Grove, IL	26

APPENDIXES

APPENDIX I

Responses to additional questions	61
---	----

APPENDIX II

Additional material submitted for the record	73
--	----

OIL AND GAS LEASING IN 181 AREA

THURSDAY, FEBRUARY 16, 2006

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m., in room SD-366, Dirksen Senate Office Building, Hon. Pete Domenici, chairman, presiding.

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM NEW MEXICO

The CHAIRMAN. The hearing will please come to order. First, let me thank the Senators and witnesses for coming. We'll try to be as expeditious as we can today and as orderly as we can. However, our schedules are clearly at the disposal of the Senate and in other committees and infringe and request and insist that some of us go elsewhere for hearings from time to time, but we're going to have to leave shortly after 10:30 a.m. for a vote, and we intend to return and complete this. Now, having said that, we want to hear from the witnesses mostly, but we need to lay some background before I do that and then yield to Senator Bingaman. And I want to ask Senator Thomas if he would care to comment on our witness, who is from his state and whom he knows well, and perhaps he would like to comment about her or say something either for or against her, whichever you like.

[The prepared statement of Senator Landrieu follows:]

PREPARED STATEMENT OF HON. MARY L. LANDRIEU, U.S. SENATOR FROM LOUISIANA

The legislation we are considering today seeks to accomplish an important goal: provide a new supply of oil and natural gas. It should come as no surprise to anyone in this room that I strongly believe any legislation that opens new portions of the Outer Continental Shelf (OCS) to production should also compensate coastal producing states for the impact to their environments and address the pressing national need to protect our coastline, restore our wetlands and strengthen levee and flood protection for our people living in these coastal areas.

Today, oil and gas production on the OCS contributes about 30 percent of this country's oil production and 21 percent of its natural gas production. It is estimated that 60 percent of the oil and natural gas in the United States that will be produced in the future will come from the OCS. Within the next five years, offshore production will likely account for more than 40 percent of oil and 26 percent of natural gas production. In fact, since the energy frontier of the OCS was officially opened to significant oil and gas production in the 1950s, no single region has contributed as much to our nation's energy production.

This is not just a coastal state issue. It is truly a national issue. So is the protection of our coast, which stands at the nexus of America's future national security, energy independence, environmental health and economic well being.

About 95 percent of today's OCS production occurs in the central and western Gulf of Mexico off the coastlines of four states: Texas; Louisiana; Mississippi and

Alabama. Without the ports, fabrication facilities and tens of thousands of miles of pipelines located in our states, it would be literally impossible to access these vital mineral assets at all.

Thanks to the leadership of both the Chairman and Ranking Member of this Committee, the recently enacted Energy Policy Act of 2005 set an important policy precedent—one that is entirely logical and fair—by providing a significant stream of coastal impact assistance funding to coastal producing states. But it was only a start.

Both the Chairman and Ranking Member as well as a number other members of the Committee have been to the coast of Louisiana. You know that it is a working coast. It is America's energy coast. It is a coast that is vanishing. And that puts America at risk.

Prior to Hurricanes Katrina and Rita, Louisiana was losing more than 24 square miles of our coastal land each year. Katrina and Rita have spotlighted and accelerated the loss.

The erosion of Louisiana's coast is a national problem. Our coastal wetlands and barrier islands are the first line of defense for protecting the offshore and onshore energy infrastructure in the Gulf of Mexico against the combined wind and water forces of a hurricane. In fact, a recent report by Louisiana State University found that every 2.7 miles of healthy marsh can reduce storm surge by as much as a foot. As a result of coastal erosion, many pipelines that were once well protected are now exposed and subject to open sea conditions.

In the aftermath of the hurricanes, I believe our nation better understands the importance of offshore oil and gas production to the nation's energy supply. We saw what happened to pump prices in the weeks after Katrina. These storms demonstrated the extent to which we depend on the central and western portions of the Gulf for our nation's economic well being. The wisdom of the Energy Bill provision should be clear to everyone. The need to do more is not only fair but clearly apparent.

While I continue to be a strong advocate for expanding exploration and production access on the OCS, I cannot support legislation that does not compensate the coastal producing states for the crucial platform they provide for this development.

I look forward to working with Senator Domenici and Bingaman and other Members of this committee to provide coastal producing states with the long term funding necessary to ensure that our coasts are protected and that the people who live along it are made secure and safe. That way, America's working coast will continue to serve as this nation's energy hub for many years to come.

I ask the Chairman and Ranking Member and the rest of this Committee to work with us to bring together mutually important goals of protecting our nation's consumers and moving toward energy independence for our country as we also secure our coastline and make it safe for Americans who live in these coastal areas.

Thank you, Mr. Chairman.

STATEMENT OF HON. CRAIG THOMAS, U.S. SENATOR FROM WYOMING

Senator THOMAS. Well, I'll try and limit my comments. I just wanted to welcome Director Burton here. She, of course, is from Wyoming, and she and I served in the Wyoming legislature together as a matter of fact. And I just wanted to tell you that here's a person with a lot of background in this area, and we really welcome her here. And by the way, Mr. Chairman, if I may ask you now, I have a statement from the Independent Petroleum Association* I'd like to put in the record. Thank you very much, sir.

The CHAIRMAN. You're welcome. In today's hearing, we're going to discuss S. 2253, a bill that would direct the Secretary of the Interior to offer areas within the 181 Area for oil and gas leasing. Yesterday is the first congressional testimony since assuming the position of the Federal Reserve Board, since that new Chairman took that position. Chairman Bernanke stated that, and I quote, "While the U.S. economy performed impressively in 2005, rising en-

*The statement can be found in the appendix.

ergy costs present an economic risk.” The Chairman further stated, and I quote again, “The possibility of significant further increases in energy prices represents an additional risk to the economy. Besides affecting inflation, such increases might hurt consumer confidence and thereby reduce spending on non-energy goods and services.”

I think we should all view this as a very serious warning from the new Chairman of our Nation’s monetary policy about the future and as it pertains to this hearing, as it pertains to the supply of natural gas for the United States. We will likely hear these same warnings today from the agricultural community as we have in the past, from the chemical industry manufacturers, the paper industry, residential consumers and scores of other Americans and representatives of almost every sector of America.

Now, when we mention these businesses, we are not talking about some corporate structure. We’re talking about thousands upon thousands of jobs. We’re talking about the future of these businesses in a global economy. Are they still going to be here? Are they going to leave? Are they going to close up? And we are led to believe, with some degree of certainty, that if the price of natural gas continues to escalate, as it has in the past 24 months after an extremely high level that has come down some after Katrina, but if it continues, we are led to believe that the United States of America will, indeed, have some very significant problems, and our consumers will suffer immeasurably. On February 15, 2000, the price of natural gas closed at \$2.61 per million Btu. At the close yesterday, the price of natural gas was \$7.32. It has been much higher, as I indicated, and there are many who think it will go much higher than the \$7.32.

Over 6 years, that means America’s natural gas bill, the bill that everybody has paid, all of those I mentioned plus all the individuals, it will have risen from \$50 billion to \$200 billion. That’s \$150 billion less that the American people have to spend. And in another way of looking at it, it’s at least that, some portion of that, that American businesses had to pay, that they weren’t paying 6 years ago, to produce products sold here and elsewhere. This is as if it were a big, giant tax upon the consumer and the American industry.

Last week, across the world, in the midst of a frigid Russian winter, the price of natural gas was about \$1.25 per million Btu. And in Oman, where the government of the Sultanate had entered into a joint venture in a petrochemical plant with an American chemical company, the price was approximately \$1. So, in today’s global market, our failure to act is setting us up to get left far behind, as I see it.

So, what will history say when we are presented with all this testimony from all of these sources in our own country, including the Chairman of the Nation’s central bank and all the others that I have mentioned? What will they say about us with all this evidence? How will they judge our action if we have before us a situation like we do here today and fail to act? What will we tell the people back home? Who bears the burden of having acted, and who bears the burden of these bills that they’re receiving? What I will

say to them is that we're going to try today to do something to alleviate that problem.

I'm going to try my best with S. 2253—the Domenici-Bingaman-Talent-Dorgan bill. I'm sure that other members came on afterwards, but that's how it's introduced. This is a bipartisan bill. We intend to keep it bipartisan. We intend to take it to the floor, if we can get it out of this committee, and ask that the Senate of the United States consider what I have just said. If our bill passes, let me state what will happen.

First, we are told that this is the single most important thing that Congress can do to bring a substantial supply of natural gas to market. I repeat, we are told, and you will hear that this is the single most significant thing we can do to bring supply to market. We are told that this impact should be on the price of the commodity in the market in the near term. Some will say this is going to happen years from now. We are told that is not the case because it is so certain and so apt to occur.

While it is likely that this production can be brought on within 2 years, it is also likely that, as I have indicated, it would send a very positive ripple through the marketplace. The message will be that we are serious. The message will be that we want to do something for Americans, the American people. And we have to ask ourselves, are we doing any harm to any part of America or to any peoples of America?

Opponents say they have concerns about the Florida coast. I can assure you the sponsors of this measure have concerns. I can assure you that there is no member of this Senate committee that does not have concerns. But as I have said in the past, it is obvious that we would not try to do anything to hurt the State of Florida. But I don't think President Clinton, Secretary Babbitt and Governor Chiles would have done anything to hurt Florida either. They negotiated drilling in an agreed-upon territory that is larger than the area in our bill, closer to the Florida coast in the area covered under the Domenici-Bingaman bill. And they negotiated, believe it or not, in a price environment, Senator Bingaman, when gas was \$2.50, when oil was \$20 dollars a barrel. Our 181 bill provides the Secretary shall not offer leases within 100 miles of the Florida coast. The State of Delaware is 100 miles long and 30 miles wide. There is nothing minimal about 100 miles as provided in this bill.

Also, we protect the prerogative of our Nation's military to conduct activities on the eastern Gulf of Mexico. Pursuant to a letter written by Secretary of Defense Rumsfeld in November 2005, we have stated in this bill that there shall be no leasing in that area within 181 unless the Secretary of Defense agrees in writing that it will not interfere with military activities that might be needed. This is clear in the bill, and we are serious about it because it has been raised by many, including your distinguished Senator Martinez.

Today, we have a broad range of witnesses. They are going to testify about the state of energy costs in our country. They're going to indicate what they believe this bill will do. And we will have witnesses who oppose it for various reasons, some pertaining to the appropriate interests of the State of Florida and other interests. We will listen to them carefully, and we will proceed with dispatch,

for there is no reason to be considering this unless it is with a sense of urgency. If there is no urgency, we can wait as we have waited in the past. That's the best I can do to explain why I'm interested as chairman of this committee. And with that, I will yield to my good friend Senator Bingaman.

**STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR
FROM NEW MEXICO**

Senator BINGAMAN. Well, thank you very much, Mr. Chairman, for having the hearing, and I welcome the chance to work with you on a bipartisan basis on this legislation. I do think it's very important. You've done a very good job of summarizing the provisions in the legislation. The one thing I would add is that the amount of the resource that we're talking about here makes it worth the effort. We're talking about six trillion cubic feet of natural gas in this area. We're talking about a billion barrels of oil. Clearly, it is in our Nation's interest to make this available for leasing. That was the consensus back in 1997 when President Clinton and Secretary Babbitt and Governor Chiles agreed to go ahead with this area, and I believe it should be the consensus today.

Obviously, as you point out, the price of gas and oil was much less then. The extent of our energy challenge, as we saw it, was much less then than it is today. And I would say doing this legislation and putting a reasonably short timeframe on the requirement that this lease sale be conducted, I think is good policy as well. It's my view that applicable environmental laws can be complied with in the year that we are contemplating in this legislation, and that the Department can go ahead with the leasing in that year as we propose in the legislation. So, I hope we can get good support to do this from the administration, from others in the Senate, and from the entire Congress. Again, I compliment you for taking the initiative to move this legislation ahead.

The CHAIRMAN. Thank you, Senator. Now, having made our opening statements, I'm going to proceed to call on a witness. And Senators, please understand I'm going to keep this hearing open for any of you to get back after meetings and get your questions and your thoughts on the record.

Secretary Burton, would you please proceed with your testimony. Whatever you have prepared will be made a part of the record, so if you'll be as brief as you can, please.

**STATEMENT OF R.M. "JOHNNIE" BURTON, DIRECTOR,
MINERALS MANAGEMENT SERVICE, DEPARTMENT OF THE
INTERIOR**

Ms. BURTON. Thank you very much, Mr. Chairman and members of the committee. I appreciate the opportunity to appear here today and to discuss the area of the Gulf of Mexico that we commonly refer to as Sale 181 Area.

Mr. Chairman, S. 2253, the legislation that you, along with Senators Bingaman, Talent and Dorgan introduced last week, calls for the expansion of the leasing non-moratoria area within the Gulf of Mexico. This closely resembles the Department of the Interior's draft-proposed program, which was released on February 8. The bi-

partisan support for some degree of increased exploration demonstrates the importance of this area.

Mr. Chairman, your bill, S. 2253, would provide additional access to part of the area known as Sale 181. The administration's draft proposal for the next 5-year oil and gas leasing program for 2007 to 2012 also attempts to provide additional access, although the area targeted in our draft-proposed program is smaller than the one you propose in S. 2253.

As the Nation's offshore energy and mineral resource management agency, the MMS has a focused and well balanced ocean mandate to balance the benefits derived from exploration and development of oil, gas, marine minerals and renewable energy resources with environmental protection and safety. It is important to note, for the record, that offshore island gas production is safe, and it has a very good record of safety.

Advances in technology and science, combined with effective regulations, make it possible to control the risks associated with producing oil and gas on the Outer Continental Shelf. In addition, the National Academy of Science has reported that only 2 percent of the oil in the U.S. oceans is related to oil and gas production, while 3 percent is associated with marine transportation, and 63 percent is associated with natural seepage on the floor of the ocean.

The Sale 181 Area is a gas-prone area, and natural gas production in the offshore represents one of the most environmentally sound energy developments this country could propose. The Sale 181 Area, the Idaho-shaped area, if you look at your map, which kind of reminds you of the State of Idaho, was first identified and proposed for leasing in a 5-year oil and gas leasing program of 1997 to 2002.

In 1997, changes to the moratoria language in the appropriation bill and a new presidential withdrawal until 2012 included the entire eastern gulf planning area with the exception of the Sale 181 Area, and it allowed that sale to proceed.

Today, access to this area is not prohibited by any congressional moratorium, and it is not prohibited by any presidential withdrawal. During 2001, after some discussion with the Governor of Florida and some more public input, Secretary Norton made the decision to modify the 181 Area that would be offered in a December 2001 sale and would be available for leasing during the 2002 to 2007 5-year leasing plan. This modification reduced the acreage available for leasing in the Sale 181 Area from 5.9 million to 1.5 million acres and removed all acreage within 100 miles of Florida from consideration for leasing through mid-2007.

There have been three sales held in the modified Sale 181 Area—in December 2001, December 2003 and March 2005. From these three sales, 119 leases were awarded, and we collected \$355 million in bonus bids.

There have been a total of 26 exploration wells drilled on the leases in this new area, and the area that was modified is the one that appears in blue on your map. It's a rectangle. The modified area that was leased in December 2001 is that blue rectangle that you see on the map.

The CHAIRMAN. Right.

Ms. BURTON. This has had—since the time it was leased, it has had 26 exploration wells drilled, and the first discovery on those leases was announced in 2003, and there were seven additional discoveries subsequently announced. They were all predominantly natural gas. The drilling and seismic exploration that has occurred within the modified Sale 181 Area, which is that blue rectangle, and the adjacent central gulf have confirmed geologic models, which indicate that highly prospective exploration plays are likely to extend in the expanded area included in your bill as well as in the Department's proposed program. That would be the kind of yellowish-green area and then the crosshatch area that you see on the map. The draft—

The CHAIRMAN. Ma'am, could you just look at that for us for a minute? And you might not know this, but would you take the—where the line of the blue intersects the yellow, that little corner, are you there?

Ms. BURTON. The line of the blue intersects.

The CHAIRMAN. Blue and the green come together, right, that corner? What I want to establish, and you tell me if this is right—

Ms. BURTON. Okay.

The CHAIRMAN [continuing]. The land you just described, that is already leased, upon which we have found natural gas, is 100 miles from this coast of Florida; is that correct?

Ms. BURTON. It is 100 miles from the coast of Alabama and the coast of Florida, the panhandle close to Florida, and it's over 250 miles from the western coast of Florida.

The CHAIRMAN. Yes, but the argument is being made that we are too close on ours because we're 100.

Ms. BURTON. You are 100 miles.

The CHAIRMAN. I'm suggesting there already are leases that have been established that are 100 miles from the coast of Florida.

Ms. BURTON. That is correct, sir.

The CHAIRMAN. Okay, thank you. Now proceed.

Ms. BURTON. The draft-proposed program that we released on February 8 is in response to over 11,000 comments that we received on the request for comments issued last August. Of those 11,000 comments, nearly 9,000 were in favor of expanding drilling in the Gulf of Mexico wherever possible.

The draft-proposed plan that we just released has a 60-day comment period, and we look forward to receiving another round of comments. The draft-proposed program is the second step in a five-step process, and this program will become effective July 1, 2007. The draft-proposed program includes consideration of leasing in an expanded area of the original Sale 181 that's now located within the central gulf, but we don't have the right map there, so I can't talk to that. I will maybe answer questions later.

Mr. Chairman, your bill, S. 2253, is a legislation that requires that the Secretary of the Interior offer a larger portion of Sale 181 for oil and gas leasing within 1 year of enactment, and the part that you see on your map, that is a very light green, is the part that would be expanded and newly offered under your bill. The part that is crosshatched is on the east side of the Military Mission Line, and the part that is solid light green—greenish-yellow is on

the west side and is not under moratorium, not under presidential withdrawal, so it is available for leasing.

This proposal, your proposal, Mr. Chairman, would make 3.6 million acres available for lease while maintaining the 100-mile buffer zone along the Florida coast. Leasing in the area east of the Military Mission Line, an area of approximately 725,000 acres, would be subject to approval by the Secretary of Defense.

The work MMS must conduct for this to go on sale must be in compliance with the National Environmental Policy Act, the Marine Mammal Protection Act, the Endangered Species Act and the Coastal Zone Management Act, and it's very similar for your bill, as well as the proposed program that the Department has just released.

Mr. Chairman, we really look forward to working with you and your staff on this legislation. And when your bill is enacted, we know we will have 1 year to put the sale up. That will be a lot of work to be done in that 1 year. The administration and the Department of the Interior are committed to ensuring that the Outer Continental Shelf remains a solid contributor to the Nation's energy needs. The relative contribution from Federal offshore areas will increase in the upcoming years due to activity in the deep water areas of the western and central Gulf of Mexico.

Mr. Chairman, this will conclude my statement. Allow me to express my sincere appreciation for the continued support and interest of this committee for MMS's programs. It would be my pleasure to answer questions if you and your members have any.

[The prepared statement of Ms. Burton follows:]

PREPARED STATEMENT OF R.M. "JOHNNIE" BURTON, DIRECTOR, MINERALS
MANAGEMENT SERVICE, DEPARTMENT OF THE INTERIOR

Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear here today to discuss the area of the Federal Outer Continental Shelf (OCS) in the Gulf of Mexico commonly referred to as the "Sale 181 area". We appreciate the Committee's efforts to address our nation's domestic energy needs. S. 2253, calling for the expansion of leasing within the Gulf of Mexico of non moratoria areas closely resembles the draft 5-year proposed program released by the Department on February 8, 2006.

The OCS Lands Act directs the Secretary of the Interior to make resources available to meet the nation's energy needs. The accompanying congressional declaration of policy states, "The OCS is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development." The Administration has directed the Minerals Management Service (MMS) to meet this charge through specific policy initiatives provided in the President's National Energy Policy. This direction is all the more critical in the face of higher oil and natural gas prices and their impacts to our economy.

As the Nation's offshore energy and mineral resource management agency, the MMS has a focused and well established ocean mandate—to balance the benefits derived from exploration and development of oil, gas, marine minerals and renewable energy resources with environmental protection and safety.

The environmental record of the OCS program is outstanding. There has not been a significant platform spill in the last 35 years. The Sale 181 area is a gas prone area and natural gas production offshore represents one of the most environmentally sound energy developments this country could propose.

The oil and gas produced from the OCS plays a major role in supplying our daily energy needs, accounting for 30% of domestic oil production and 21% of domestic natural gas production. The Gulf of Mexico is the most prolific producing offshore region, providing 27% of the oil and 20% of the natural gas produced domestically. The share of Gulf of Mexico production is expected to rise within the next several years to about 23% of natural gas and 40% of oil domestic production.

SALE 181 AREA

In 1999, MMS put out a call for information and notice of intent to prepare an environmental impact statement for a proposed Federal oil and gas lease sale in the area now referred to as the original Sale 181 area. This area, original Sale 181, included an area offshore of Alabama beginning 15 miles south of the Alabama coast and an area offshore of Florida more than 100 miles from the Florida coast. It included 1,033 lease tracts covering 5.9 million acres.

In 2001, the Secretary of the Interior spent a great amount of time speaking with officials and citizens of the affected states around the original Sale 181 area. Based on those discussions, a decision was made to modify the 181 area that would be offered in the December 2001, lease sale and that would become available for leasing during the 5-Year Oil and Gas Leasing Program for 2002-2007. This modification reduced the acreage available for leasing in the Sale 181 area from 5.9 million acres to 1.5 million acres. At the time, the Department projected the adjusted area contained an estimated 1.25 trillion cubic feet of natural gas and 185 million barrels of oil.

There have been three sales held in the modified Sale 181 area. The first, Sale 181, held in December 2001; Sale 189 in December 2003; and Sale 197 in March 2005. The results of Sales were as follows:

Sale 181: 95 leases were awarded, with total high bids of \$340,474,113.

Sale 189: 14 leases were awarded, with total high bids of \$8,376,765.

Sale 197: 10 leases were awarded, with total high bids of \$6,595,753.

There have been a total of 26 exploration wells drilled on the leases in this area. The first discovery on leases issued in these recent sales was announced in 2003 with seven additional discoveries subsequently announced. These discoveries are predominately natural gas.

Five independent exploration and production companies and a mid-stream energy company have come together to facilitate the development of multiple ultra-deep-water natural gas discoveries located in the Central and Eastern Gulf of Mexico, including all of the 7 discoveries mentioned above. The fields' water depths range from 7,800 to 9,000 feet. The production from these discoveries will be tied-back to a central platform, *Independence Hub*, which will be located on unleased Mississippi Canyon Block 920 in the Central Gulf. First production is expected in 2007.

5-YEAR PROGRAM FOR 2007-2012

In August 2005, the Department began the process of developing the next 5-Year Oil and Gas Leasing Program 2007-2012 by requesting comments on all OCS areas, including the Sale 181 area. On February 8, 2006, the Department announced its draft proposed program for the 5-year OCS Oil and Gas Leasing Program 2007-2012. This was the second step in a 5-step process which affords substantial opportunity or public comment. Under the draft proposal, the MMS would plan on conducting a lease sale in a larger part of the original Sale 181 area in the fall of 2007.

On January 3, 2006, the Department published in the *Federal Register* revised administrative lines that differentiate Federal waters of the Eastern, Central and Western Gulf of Mexico. These lines were drawn on the principle of equidistance. It is now clear which area of Federal waters is off the coast of each state. These lines are purely administrative with no legal effect on civil or criminal jurisdiction. We published the lines because the OCS is more and more subject to multiple-use activities, and it became timely to delineate zones of interest of coastal states in Federal waters.

The draft proposal includes consideration of leasing in an expanded area within the original Sale 181 area. The expanded area is approximately 2 million acres now located within the Central Gulf Planning Area under the new administrative lines. This area is in addition to the 1.5 million acres within the original Sale 181 area already offered for leasing under the current 2002-2007 5-year program.

MMS estimates that most of the prospective tracts in this area would be leased out within 5 years, under annual sales, and that the first production would occur within 5 years of the first sale.

The Sale 181 area, which we believe has a huge potential for natural gas and oil resources, is not under Congressional moratorium or Presidential withdrawal. Nevertheless, in accordance with the Secretary's commitment, the draft does not propose any leasing within 100 miles of the coast of Florida, including that portion of the Sale 181 area which is now in the Central Gulf Planning Area. No lease sale is proposed in the Eastern Gulf Planning Area. This respects the commitment made by the Secretary, which was reiterated in the August 2005 Request for Information,

that the Secretary “had no intention of offering for leasing areas in the Eastern Gulf of Mexico Planning Area within 100 miles of the coast of the State of Florida.”

In addition, the area proposed for leasing is *west* of the Military Mission Line (86 degrees, 41 minutes West longitude) and would not interfere with military readiness or training. We work extensively with the Department of Defense on all oil and gas leasing on the OCS and envision this relationship to continue with future leasing decisions.

The draft proposed program would continue to schedule annual area-wide lease sales in the Central and Western Gulf Planning Areas, as has been the customary practice.

The area south of the original Sale 181 area that is west of the new administrative line has been included for analysis. This area is currently under both Presidential withdrawal and Congressional moratorium; both of these would need to be removed before this area could be offered for lease. It is estimated that there could be 700 million barrels of oil and 3.68 trillion cubic feet of natural gas in this area. This area warrants further analysis and consideration in order to inform future decisions as to whether or not to include the area in the final program. Therefore, the draft proposed program notes that subsequent annual Central Gulf sales may consider the area to the south. No sale will be held unless the moratorium is discontinued by Congress and the Presidential withdrawal is modified. In addition, pursuant to Section 18 of the OCS Lands Act, no sale will be proposed until all affected states have the opportunity to comment.

2006 RESOURCE ASSESSMENT

Concurrent with the draft proposed program, MMS released two documents: (1) *Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2006*; and (2) the *Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources*, which was sent to Congress. These documents report MMS's new estimates for the total endowment of technically recoverable oil and gas resources for the entire OCS, including areas under Congressional moratoria or Presidential withdrawal. In the draft proposed program for 2007-2012, numbers were predicated on the 2003 estimates. These numbers will be updated in the proposed program that will be released in the summer of 2006.

MMS periodically updates its resource assessments to include any new data and information, incorporate advances in exploration and development technologies, and use new assessment methods. MMS did *not* directly acquire or contract for the acquisition of new seismic data or the drilling of wells. All of the data used was commercial data or published scientific research.

The Department has completed eight comprehensive resource assessments since 1976. During this timeframe, the magnitude of resources believed to be technically recoverable continued to grow with each assessment in those areas with leasing activity.

ESTIMATES FOR THE SALE 181 AREA

MMS has examined the resource potential of the Sale 181 area under the 2003 interim update. Based on those assessments, we have estimated that the portion of the Sale 181 area east of the area currently available for lease has a potential of 930 million barrels of oil and 6.03 trillion cubic feet of gas. This is the area proposed in S. 2253. By contrast, the new area included in the Draft Proposed Program for 2007-2012 is estimated to contain 530 million barrels of oil and 3.42 trillion cubic feet of gas.

S. 2253

Mr. Chairman, I will now turn to S. 2253, the legislation that you, along with Senators Bingaman, Talent and Dorgan, introduced last week. The legislation would require the Secretary of the Interior to offer a large portion of the Sale 181 area for oil and gas leasing within one year of enactment. We support the goals of the legislation and we appreciate your efforts to make additional energy resources available for our nation. This proposal would make 3.6 million acres available for lease while maintaining a 100 mile buffer zone along the Florida coast. Leasing in the area east of the Military Mission Line, an area of approximately 725,000 acres, would be subject to the agreement and approval of the Secretary of Defense.

The work MMS must conduct to comply with the National Environmental Policy Act, Marine Mammal Protection Act, Endangered Species Act, and Coastal Zone Management Act is very similar for the sale included in its draft proposed oil and

gas leasing program as for the lease sale called for in S. 2253. Mr. Chairman, we look forward to working with you and your staff on this legislation.

CONCLUSION

This Administration and the Department of the Interior remain committed to ensuring that the OCS remains a solid contributor to the nation's energy needs. The relative contribution from federal offshore areas will increase in the upcoming years due to activity in the deep water areas of the Western and Central Gulf of Mexico.

Mr. Chairman, this concludes my statement. Please allow me to express my sincere appreciation for the continued support and interest of this committee for MMS's programs. It would be my pleasure to answer any questions you or other members of the Committee may have at this time.

The CHAIRMAN. Thank you very much.

Senator Bingaman.

Senator BINGAMAN. Thank you very much for your testimony. Let me just ask about the timeframe, first of all, because as I understand, the draft proposal that you folks have issued is for the next 5 years. And that's the normal way that MMS has gone about this, they prepare a plan and say over the next 5 years, these areas will be made available for leasing. Am I right about that?

Ms. BURTON. Right now, Mr. Chairman, we are proposing—this is a draft proposal. And in this draft proposal, which will start July 1, 2007 to 2012, we are proposing to maybe have some lease sale. And the reason I say maybe is because until the plan is final, we don't know exactly what will stay in it. But at this point, yes, sir, we are proposing to open part of this area.

Senator BINGAMAN. And you say in your testimony that MMS would plan on conducting a lease sale in a larger part of the original Sale 181 Area in the fall of 2007?

Ms. BURTON. Yes, sir, that is our plan today. We have begun the environmental work, just begun, so that gives us 18 months to complete the proper environmental work.

Senator BINGAMAN. If you're thinking about an 18-month period, 18 months from today, you would have the environmental work done, and you'd be ready to go with a lease sale. What we're proposing is that a lease sale occur within a year of the time that this law becomes effective. There's not too great a difference there, assuming that it takes a few months before we get this legislation passed, if we were able to. I mean, knowing the way this place works, if we can get this passed in the next 4 or 5 months, we'll be doing very well, and then we're very close to the same timeframe that you're looking at.

Ms. BURTON. That is correct, sir.

Senator BINGAMAN. Okay. Let me ask about this gas-only leasing suggestion that continues to be discussed a little bit. Is that workable? Does it make sense to be thinking of gas-only leasing provisions?

Ms. BURTON. Mr. Chairman, if we are really looking for natural gas, it appears to make sense. However, practically, I think it will be difficult to implement. We will, obviously, do it if that would be the law of the land, if you will. But when we asked for comments on our proposal last summer, we asked that very question, and we received quite a few comments on it, and they were all negative, meaning that the only folks that will use that are the folks that invest in drilling. So, it's the industry, and industry comments were not very positive for gas only.

Senator BINGAMAN. Let me ask about this provision we've got in here that says the Secretary of Defense must agree with what is happening, what the Secretary of the Interior intends to do before the Secretary can go ahead, with regard to any area east of that Military Mission Line, I guess it is called. I understand that, in the past, MMS has worked with the Department of Defense to ensure that activities that occur east of that Military Mission Line don't adversely affect or impact on Military activities. Could you describe what agreements you've had or how that's worked in the past?

Ms. BURTON. Mr. Chairman, we have had, and we continue to have, consultation with the Department of Defense. In fact, for this draft-proposed plan, I personally participated in about three different meetings at the Pentagon. So, we do consult. We work together. We have an MOU. And in the past, when there have been blocks of—lease blocks that were very close to that Military Mission Line or beyond it, we have put stipulations on that the Defense Department agreed to. Maybe there would be no surface occupancy. Maybe all completions on all structures are required to be on the sea floor, nothing on the surface. Maybe there are some months within the year that we can't be there. And so, once we agree to a set of mitigation with the Department of Defense, then those go into the terms of our lease, so when the lessees get their lease, they know exactly what they can and cannot do.

Senator BINGAMAN. Very good. Well, let me ask one other question about the timeframe. If, in fact, leasing occurs in the fall of 2007, either because of your plan going forward or because we're able to pass this legislation, how long do you expect it would take before actual production would occur in the new area leased?

Ms. BURTON. This, Mr. Chairman, is a difficult question for us to answer because, obviously, we're not in control of this, but experience tells us that we could expect wells to be drilled within a couple of years after the lease, after the sale occurs. Now, production is something else. They drill wells, they proof their field, then they have to build the facilities to transport the product. Presently, there is a facility that's being built and developed that would sit immediately west of that blue area. And several of the fields, the fields that have been discovered, will tie up to that central platform. This is—we assume that might also take some of the production from the new area that you're proposing to open. So, it depends on how long it will take. But if that platform, that Independence Hub, is already built, then potentially, production could occur within 3 to 4 years.

Senator BINGAMAN. Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Senator BINGAMAN. Mr. Chairman, may I also put in the record a written statement that Senator Bill Nelson asked be included?

The CHAIRMAN. Yes, indeed.

[The prepared statement of Senator Nelson follows:]

PREPARED STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

Mr. Chairman, Sen. Bingaman, members of the Committee, thank you for the opportunity to submit a statement for the record on the bill to open up all of Lease Sale 181 to leasing.

As you are considering this legislation today, I encourage you to take a moment to walk in another person's shoes—the shoes of myself and my colleague Sen. Martinez.

Tourism is an essential component of Florida's economy—just as cattle is to the economies of New Mexico, Wyoming, and Montana; just as horses are to the economy of Kentucky; and just as seafood is to Alaska. For the good of your state and the health of your economy, I'm confident that each of you would fiercely defend these industries—and rightly so.

And this is exactly why Sen. Martinez and I introduced our bill a few weeks ago—to protect our state's most vibrant industry and irreplaceable natural resources.

This bill protects Florida's tourism-dependent economy while providing a common-sense approach to the issue of oil drilling in the Gulf of Mexico. We are offering 740,000 acres of new leasing in exchange for a permanent no-drilling zone extending 260 miles off Tampa Bay and 150 miles off Pensacola and Florida's East Coast.

For many Floridians, this issue boils down to just one thing—an oil spill would simply devastate Florida's delicate ecosystem and number-one industry. Who would travel to our state to see birds covered in black oil, dead fish and other marine life washing ashore, 800-square mile oil slicks and miles of blackened beaches?

Even a small spill can have damaging, long-term effects, killing plants, corals, fish, birds and mammals. Exploratory drilling, development and production interfere with migratory routes of animals such as tuna, billfishes and jacks. The increased activity of industry vessels will harm dolphins, whales, sea turtles and other animals, including some listed as endangered species. And, we still don't know how discharged contaminants will affect eggs, young animals and marine life populations. Our legislation will protect Florida from all this.

But the permanent protection created by this bill would protect more than just Florida's economy—it also would safeguard the nation's military readiness. The military's testing and training range in the Eastern Gulf of Mexico is key to national defense—a role that Secretary of Defense Rumsfeld confirmed late last year. Specifically, he said “in those areas east of the Military Mission Line, drilling structures and associated development would be incompatible with military activities, such as missile flights, low-flying drone aircraft, weapons testing, and training.”

Our bill accommodates these needs by protecting all waters east of the military mission line from leasing.

The plan Sen. Martinez and I introduced will satisfy the needs of all parties involved by opening 740,000 new acres of leasing while still protecting military training needs and our unique environment. I hope you will consider supporting this bill—and ultimately protecting Florida's economic resources just as you would protect your own state's resources.

I look forward to working with the Chairman and the Ranking Member on this very important matter.

Senator BINGAMAN. Thank you.

The CHAIRMAN. I think what we're going to do right now is we're going to go backward and let Senator Landrieu speak next before the vote.

Senator MARTINEZ. That's fine.

The CHAIRMAN. And you will be first when we return.

Senator MARTINEZ. Thank you.

Senator LANDRIEU. Thank you, Mr. Chairman. Madam Director, could you, just for the record, state, of all the 50 States, which of the States are currently allowing production off the coast?

Ms. BURTON. I believe you are looking at Alaska, California, Texas, Louisiana, Mississippi, and Alabama.

Senator LANDRIEU. And of those States, which are the ones that do not have moratoria?

Ms. BURTON. Texas, Louisiana, Mississippi, Alabama and Alaska. Alaska has a little area, but not very much.

Senator LANDRIEU. So, there are only five of the 50 States that are allowing the Nation to try to access some additional revenues to keep the energy security of this Nation intact. Would you say that those States—

The CHAIRMAN. Senator, to correct you, there are not 50 States—sorry, 50 coastal states. Did you say 5 of the 50?

Senator LANDRIEU. I'm sorry, five of the coastal States. Thank you, five of the coastal States. Thank you, Mr. Chairman. Would you say that it's useful or essential for the cooperation of these States for these minerals to even be extracted? Is it useful to have the help of these States, or is it essential to have their help?

Ms. BURTON. Mr. Chairman, I would say it's both.

Senator LANDRIEU. Okay, can you talk a bit about the essential aspect of it? What is essential about these States to allow you to access minerals?

Ms. BURTON. Mr. Chairman, there are several provisions in the statutes that give the State a fairly big voice in whether or not production will occur off their coast. The first thing that comes to mind, obviously, is the Coastal Management Zone Act. So, it is essential that the State recognizes that what we plan offshore is consistent with their plan. From that standpoint, it is essential.

Senator LANDRIEU. Well, let me ask this. Could you lay pipelines without the permission of the States of Louisiana, Texas, Alabama or Mississippi?

Ms. BURTON. Mr. Chairman, laying pipelines is outside of my realm of expertise, so I will refrain from answering that, but it seems intuitively that you would have to lay them somewhere.

Senator LANDRIEU. Okay. It would not come as any surprise to the members of this committee, Mr. Chairman, that I feel strongly, and Louisiana feels strongly, that any legislation that would open up portions of the Outer Continental Shelf would fairly and responsibly compensate the States that have allowed coastal drilling to proceed all these many years.

And for the record, I checked this morning. The total income, just income to the Federal Treasury, exceeds \$154 billion since drilling occurred, to the Federal Treasury. So, that would be a major contribution, not the least of which are the millions of jobs produced, the economic security of the Nation and the energy produced itself, but just a revenue benefit.

The coastal environment of Louisiana, as Ms. Burton knows, includes 19 parishes, 2.5 million people, nine ports, hundreds of miles of levees, numerous refineries, more than 9,000 miles of pipeline, tons of shrimp and fish and a population that has proudly supported the industry all of these years.

So, it comes as some consideration or some concern to us that we would be yet suggesting additional drilling off the coast of Louisiana and Mississippi and Alabama, primarily, without some consideration to the contributions that these States are making.

I will have more questions as we go on, but I do just want to use this short time that I have to say for the record that this is not just a coastal issue for Louisiana, for Mississippi and Texas. It's a national security issue. It's an issue of fairness. It's an issue of justice, particularly because the interior States, since 1927, have been enjoying a significant portion of the taxes generated, including the chairman and the ranking member's State of New Mexico, which they are well aware, the State of Wyoming, and the State of Utah keeps about 50 percent of their revenues.

Particularly in post-Katrina, I would say, Mr. Chairman, it's become clear to the people of the gulf coast that this is a tremendous resource right off of our coast that could be used to protect us, to secure this coast, not only for ourselves, but for future generations.

So, as we consider the ways to move forward in trying to negotiate with the great State of Florida about what is important to them and about the other producing States and about supplying the oil and gas necessary for this Nation to remain strong, I hope that we will consider that, as we move forward. And I'll submit some additional questions to the record.

The CHAIRMAN. Thank you very much. What we're going to do now, because we've got ourselves in a situation where there's only about two and a half minutes to vote—let me just say, Senator, I understand everything you've said. I concur wholeheartedly.

And you know that I have been one who, for the first time, departed from the status quo and put in the energy bill \$1 billion in money mandated to go to your State and others, over half to yours, recognizing that there were, indeed, coastal impacts that had not heretofore been adequately compensated. I remain committed to that.

The difficulty is what is it, what can it be used for, how do we do that with reference to the entire country as we proceed forward. And you know what I was trying to do here. I was trying to do something quickly for the consumer, trying to not jeopardize what you are seeking in the future. I'm hopeful we can do that, and I'm very appreciative that you will maintain your protective interest and yet try to work with us, as I understand that's what you had told us heretofore, and I assume that's correct.

Senator LANDRIEU. And I thank you, Mr. Chairman, because without your leadership and the help of the ranking member, we would not have gotten a precedent-setting \$1 billion. The Energy Committee compensates, begins to compensate, but it's only a start, so we look forward to working with you as this progresses.

The CHAIRMAN. And we're going to recess for about 15 minutes, after which time Senator Martinez will have his time to inquire and say what he'd like. And we'll extend yours to twice the amount, Senator, for your patience.

Senator MARTINEZ. Thank you, sir.

[Recess]

The CHAIRMAN. Sorry for the delay, but we'll give you all a little time to sit down. If any more of you want to come in, please get seated. All right.

Senator Martinez.

STATEMENT OF HON. MEL MARTINEZ, U.S. SENATOR FROM FLORIDA

Senator MARTINEZ. Thank you, Mr. Chairman, and let me thank you and the ranking member for your courtesy to me and for holding this hearing today on this very, very important issue. There's no doubt that the needs of our Nation, as it relates to natural resources, as it relates to how we fuel our homes and businesses, is of dire importance. In addition to that, I know that there are business implications, as it relates to gas exploration, and the price of gas is, indeed, important. And when we talk about it and you men-

tion about this being a historical calling and a historical time, I'm reminded of what the folks back home will say to me if I don't act as they would expect me to act as their Senator from the State of Florida.

You know, Mr. Chairman, as we talk about the importance of the price of gas, as it relates to businesses, as it relates to fertilizers, those are really economic questions that we ask, and the State of Florida also has some economic concerns that are important to our State.

See, our economy, while it does have a very strong fertilizer industry, it also has an awful lot of our economy that depends on tourism. It depends on the natural beauty of our State and the things that it brings to acquire—or for others to want to come and visit our State. The jobs of many depend on the tourism industry. That's what I hear from chambers of commerce across our State that protect our coast, protect our beach, protect our way of life. The environment is very, very fragile in the State of Florida. We're a State that—many parts of our State are coastal. Many other parts of our State are in wetlands. And all of this is a very, very fragile ecosystem and one that we value greatly. It is part of our heritage. Just like I know, when I visited your State, Mr. Chairman, there's so much about the desert that is of beauty and that is of nature and the same as with our beaches, the same as with our wetlands, the same as with our natural resources in the State of Florida we value greatly.

So, that's why we're so concerned and we're so preoccupied about what happens in the Gulf of Mexico. Mr. Chairman, I understand, from what you have suggested today in your plan as well as the Department of the Interior's new 5-year proposal, that there is a need for us to address this issue. There is a need for us to not just say no, not just to say we can't do it, and we won't cooperate, and we won't help. But it is important that we recognize that we want to do this with certain protections to the State of Florida. When we look at your proposal, we have decided that it was necessary for us to also have an alternative proposal.

Senator Nelson and I, in a bipartisan way, have worked together to put together a plan that also opens up the eastern Gulf of Mexico to drilling, that also opens up areas of 181. And if you could, please, put the chart up. And in this proposal that we have, it takes into account the important considerations of our State, while at the same time, keeping a 150-mile buffer around the State of Florida. As we look south of—

The CHAIRMAN. What is the buffer line, how many miles?

Senator MARTINEZ. Mr. Chairman, it's a 150-mile line coming south of Pensacola.

The CHAIRMAN. All right.

Senator MARTINEZ. It also is 240 or some odd miles west of Tampa Bay, a little less critical difference there from your proposal. But, Mr. Chairman, what it does is—if you look at it, there is an area there that is bound by some lines, and if you see next to the blue area and come immediately to the east of that, that is 744,000 acres that it opens up.

Now then, there's a red line there, which is where we would stop at this point, but we would allow a 25-mile buffer to the military

so that the Department of Defense, in cooperation with the Department of the Interior, could determine if they needed any additional space to complete their military mission. If they were not to need that area, that would also open up 576,000 acres to drilling.

But, Mr. Chairman, in addition to that, there's an area to the south, and it's a vast area to the south, and that area would open up immediately another four million acres to drilling in addition to, as you look to the right, that 25-mile buffer pursued down south would also open up an additional one million acres.

Altogether, Mr. Chairman, what we proposed would open 6.3 million acres to new drilling, to new exploration in an area that has heretofore been foreclosed. But what it does—what it doesn't do is it doesn't encroach on Florida in a way that we would consider harmful. It does give us a 150-mile buffer south of Pensacola. When you point out that the blue area is already open, the fact of the matter is that that area is in the Alabama line, it's not under the Florida line, while it still is contiguous to the State of Florida. We shouldn't repeat that mistake. We shouldn't repeat that encroachment, and we should provide Florida the 150-mile buffer that we believe is important.

Well, Mr. Chairman, I think, and if I could have just another couple of moments to—

The CHAIRMAN. Senator, could I just ask you a question on that statement?

Senator MARTINEZ. Yes, sir.

The CHAIRMAN. You said that that's within the waters of Alabama.

Senator MARTINEZ. Well, the blue area, I believe it's—

The CHAIRMAN. Yes, I understand. But the truth of the matter is if you drill on it, you still measure the distance to Florida; right?

Senator MARTINEZ. Mr. Chairman, you're absolutely right. The distance to Florida is the same.

The CHAIRMAN. The same, a hundred miles.

Senator MARTINEZ. But how we got there is because of the moratoria and, you know, the State of Alabama having a different opinion about the use of their coast. But yes, that's correct.

The CHAIRMAN. Thank you.

Senator MARTINEZ. One question I would ask—and then I'll direct myself to questions, but if I could just have another moment or two to summarize our position as to how do we get to this problem. Well, you know, we're driven by the price of natural gas when it was \$2.20, so it didn't seem to be too much of a problem. Just a few months ago, it was \$11.50, and now, all of a sudden, it's \$7 and something, so the fluctuations on the price of gas should not drive us to do what we otherwise do not feel is wise environmental policy, as wise policy for the State of Florida.

But in addition to that, Mr. Chairman, I think it's important that we also realize how we got to this position and how we got to this point. And in fact, it is, I believe as much as anything, because we have had a very misguided policy to generate power with gas. And this misguided policy to generate power with gas, which Secretary Bodman just last week referred to here as washing dishes with good scotch, because it's such an inefficient source of fuel for generation, for power generation, that we shouldn't perpetuate that,

and in fact, we should be looking for alternatives of how we generate power as we go into the future. We shouldn't just drill more, satisfy the immediate need, but not think about—thinking into the future about how we generate power. We need to diversify our power sources. We need to look to clean coal technologies, we need to look to safe nuclear technology, so that we can generate power in a different way and not just simply drill and drill and drill some more.

There are two other issues I want to point out, Mr. Chairman. One is the fact that this bill today takes care of the moment. The 5-year plan with the Department of the Interior, which is a little less ambitious than your bill, also only takes care of the moment. Where is Florida going to be in 2 years from now if we pursue and continue to pursue unwise generating policies, unwise policies based on the artificially cheap price of gas, and continue to drive the price of gas even higher? Will we then just keep moving east? Will we then just keep moving north? Will we then just continue to threaten Florida's coast? At some point, we've got to deal with this on a permanent basis, and that's what Senator Nelson and I are trying to do through our bill is to say these are the lines, beyond these lines, Florida will not be threatened, Florida will have permanent protection.

So, what I would suggest is that we also need to consider making something that is permanent, accepting what we are compromising to give, yet making some permanent lines so that the people of Florida can rely on the safety and assurance to know that we're going no further.

In addition to that, Mr. Chairman, I believe that it's also important to those States that have been providing us with so much of the resources that we need, and that Florida needs, with the revenue that they should have as we open these new areas to drilling, these new areas to exploration, that by my proposal would open 6.3 million acres to exploration that are heretofore closed. That's a very significant amount of acreage that the States that have permitted within their boundaries to be utilized for drilling in the past, and they should also be able to receive the benefit therefore.

And I believe also, as we look at the problems of the gulf coast, that that should be a revenue source that they should utilize to protect their coastline, for beach renourishment and other estuaries that are so important to the people of Louisiana, Alabama, Mississippi, and frankly, Florida as well.

So, thank you for your indulgence, Mr. Chairman, and I'll just proceed to ask a couple of questions of Ms. Burton.

The CHAIRMAN. Go ahead.

Senator MARTINEZ. Thank you. Ms. Burton, I wanted to ask you about that area just south of Area 181 and ask if it has been a part of any studies or any analysis of what it could yield in terms of oil and gas production.

Ms. BURTON. Mr. Chairman, this area is actually included in our proposed plan. We would like to keep it so we can study it precisely. I don't know that I have exact numbers for you, and I hesitate to give you a number that may not be verified, so I will tell you that I do not know exactly the resources in that area, but I do

believe that we feel there are resources there, and we are proposing to look further at this area.

Senator MARTINEZ. There's no reason to think it'd be dramatically different than the area immediately to the north of it?

Ms. BURTON. I don't know where the geology goes. We'd have to ask the scientists to look at the trends and to find out whether this is as good or better, maybe, or not as good. We don't know that, but we do know that this area is under both moratorium and presidential withdrawal. So, in our plan, we keep it in play, if you will, but we know nothing will happen there unless Congress decides to lift the moratorium and the President decides to modify his withdrawal.

Senator MARTINEZ. If that Martinez-Nelson bill were to pass, that would be then available and open. And by our estimation, that's an additional five million acres that would be open to exploration. Under the current bill, S. 2253, the Secretary of the Interior is directed to conduct a sale within 1 year of enactment. And under his currently written form, will the Department of the Interior be able to lease sale without addressing NEPA requirements? And frankly, I didn't see any reference to the NEPA requirements in the bill.

Ms. BURTON. Mr. Chairman, I think that the bill anticipates that we will do our work, the work we normally do, which is all the NEPA work, the ESA work, the MMPA work, et cetera. And we are beginning to do that. As I mentioned earlier, we have, in our plan, 18 months to do it. Under the chairman's bill, we'd have 1 year from enactment. But depending on when enactment occurs, it might be very similar to ours, so we think we will have time to do the work. It'll be very tight.

Senator MARTINEZ. If I could just have the other chart with the Department of the Interior lines. In your proposal, you stay to the west of the Military Mission Line as well.

Ms. BURTON. Mr. Chairman, by quite a bit. And this map is not correct. I'm not sure how we ended up here, but it does not have the line, the planning line, that actually stops where we proposed development, which is an oblique line, so we don't have the full area.

Senator MARTINEZ. You're right. I think it's this map I have here in my hand. Is it?

Ms. BURTON. Yes.

Senator MARTINEZ. I think it's the same, actually. It's just that it—it's over there.

Ms. BURTON. You do not see the line where we stop.

Senator MARTINEZ. It's just a soft—it's a soft color that doesn't highlight it, but it sits there. So, basically, you stay fairly to the west of the Military Line?

Ms. BURTON. That is correct.

Senator MARTINEZ. And frankly, it's fairly close to the proposal that Senator Nelson and I are making, except that the northern part of the Lease Area 181, where you only come down 100 miles south of Pensacola, we would come down 150 miles south of Pensacola. What I'm trying to point out is that we're not dramatically different than the lines you have drawn in the areas that we have proposed for leasing.

Ms. BURTON. I believe it's about half.

Senator MARTINEZ. Okay.

Ms. BURTON. You are offering about half the area that we are offering.

Senator MARTINEZ. But if you were to take into account the area immediately to the—in the 25-mile buffer area, between the Military Line and the other line, I think that would open an additional 576,000.

Ms. BURTON. Altogether, sir, we are opening or proposing to open two million acres in that Sale 181 Area.

Senator MARTINEZ. So, we open about 1.2 million acres or something like that.

Mr. Chairman, that's all the questions. Thank you very much.

The CHAIRMAN. Thank you very much. Senator, I want to say to you I understand the very difficult position that you are in, and I want to tell you that it's been my responsibility to look at this from one direction and from one vantage point, and it's with great respect that I understand your vantage point. I don't know where the two vantage points will meet, if ever, but we have to proceed, and you will proceed, and we'll do our best to do it in a proper, amicable and, nonetheless, objective manner, and we'll work together on whatever we can.

Senator MARTINEZ. I appreciate that greatly, Mr. Chairman. And one of the things that I hope you can see from the proposed map that we have put there today is that we're not shrinking from opening up substantial areas of the gulf. It's a big opening, a big change from where we've been.

The CHAIRMAN. And I don't choose today, so everyone will know, because I'm not going to go through details of the Martinez-Nelson bill and ask questions about does this do this, does this do that. Let me just suggest that it is not as—it is complicated in that some of the areas that look like they're going to be opened are not, they're just not subject to any moratorium. And I don't want to go through all of that. Just suffice it to say the following: The Martinez proposal would open 700,000 acres, the Domenici-Bingaman would open 2.9 million, and with the military, it'd be 3.6 million. The original Clinton-Chiles proposal was 5.9 million.

Now, I only state that because I do believe that if we're looking at production of natural gas, acreage is relevant, and the smaller, presumably the less, although not absolutely necessarily the larger, the more. And the question, then, would be damage to—possible damage to Florida.

My last observation is that this water belongs to the United States of America. Now, we want to give States a lot of rights, but we don't speak of somewhere out in the Pacific Ocean, it being 200 or 300 miles out there. It's water belonging to the States that are closest to it, right? I mean, it's the ocean, or it's the sea. Nonetheless, the issue, to me, is the risk involved and the needs of the country. And I don't hear a lot of people talking about the risk objectively. I hear them talking about the risk, which seems to me to be scary. Well, risks always have fear, but the question is are they real? And that's the issue here.

Last comment, so we'll have it in the record. I've checked again today. I guess we had as bad a wind as we're going to have for a

while when we had Katrina hitting those offshore rigs that you and I went to see. Now, they got busted, didn't they? But my understanding, Senator Landrieu, is they did not have any significant leaks.

Senator LANDRIEU. It was very minimal.

The CHAIRMAN. So, I just think we not only had a new technological era go out there and make the drilling, but we've had a—we didn't have to test it in a laboratory. I mean, it was tested in the most monstrous real laboratory for stability that we're probably going to see.

Now, having said that, my list would say that the next Senator would be—come back to our side, to Senator Talent.

Senator TALENT. Thank you, Mr. Chairman. Did you want to go to me from Senator Martinez?

The CHAIRMAN. Yes, and then we'll go there.

Senator TALENT. You're the chairman.

The CHAIRMAN. What I want to do is brief these questions because we have three more witnesses, okay? So, let's go ahead.

**STATEMENT OF HON. JIM TALENT, U.S. SENATOR
FROM MISSOURI**

Senator TALENT. All right, I'll be brief. Maybe I'll just make a statement, maybe one question, Mr. Chairman. You know how strongly supportive I am of both the bills that you have sponsored, and it's just so very clear to me that we're in a situation where we have to get energy of all kinds. Now, I was, along with Senator Dorgan and Senator Johnson, a leader in the struggle for the renewable fuel standard. And I think the future is not necessarily in these traditional forms of energy, but we have to have natural gas. We have to have oil.

We've lost three million manufacturing jobs in the country in the last 5 years that are traceable, at least in part, to natural gas prices. That's three million manufacturing jobs. We're not going to get a lot of those back, and they're gone for good. My State's an agriculture and manufacturing State. It's ironic how often we wring our hands about what's happenings to jobs, and they're going overseas, and then we turn around, and we won't do the obvious things that are going to keep jobs here.

We have over 400 million or trillion cubic feet of natural gas offshore, and I think we all resolve that we're going to go after that and get it. And then the question is how do we do it in a way that strikes the right balance? And I do appreciate the Senator from Florida's contribution to that. There are things we can do to make this easier for everybody, drawing it carefully, using the highest standards of technology. Compensating the states, which Senator Landrieu has talked so much about, I mean, that to me is a great compromise. Well, go ahead and get the oil and the natural gas and the States that are potentially adversely affected or have concerns, we can compensate, allow States to opt out of the moratorium. Senator Warner's very interested in that, I know.

Mr. Chairman, you're right. There isn't any absolute safe course, but I'll say this: Not getting the energy isn't safe either. A lot of the environmental concerns that we have to deal with in the country come down to funding. I mean, we have big clean water issues

in Missouri. We can resolve those. We have to have the money. And if we have the money, we have to have the economic growth, and you have to have energy to do that. It comes down to that. So, I'm very supportive of your efforts and grateful to Senator Martinez and Senator Nelson for their contribution.

[The prepared statement of Senator Talent follows:]

PREPARED STATEMENT OF HON. JAMES M. TALENT, U.S. SENATOR FROM MISSOURI

Our nation is a leader in industrial and economic growth, based on a foundation of plentiful and affordable energy. Until recently, we rarely gave any thought to turning up the heat or leaving the lights on, trusting that the world will provide cheap energy. That paradigm is no more.

In his State of the Union address, President Bush declared the need to increase our energy independence. I agree—we must develop technologies to reduce our dependence on Middle Eastern oil. Low-cost, reliable energy is the key to prosperity and national security, and that key cannot be left in the sands of the Middle East.

Natural gas prices set record highs this winter, exceeding \$15 per thousand cubic feet (Mcf). Natural gas still costs two to three times traditional levels, due in part to increasing world demands for energy.

And there is more at stake than high utility bills. Employers such as Missouri farmers and manufacturers are big users of natural gas as feedstock for fertilizer and chemical products. The Industrial Energy Consumers of America reported that “since 2001, natural gas prices have significantly contributed to the loss of 3.0 million manufacturing jobs and the shifting of future investment overseas.” We can't continue to export jobs and manufacturing capability overseas simply because our energy costs are too high, and they are: in Europe, natural gas sells for \$7.00 per thousand cubic feet and in China, less than \$5.00.

The Renewable Fuels Standard that I added to last year's energy bill was an important first step towards lessening our dependence on the Middle East. President Bush's proposal builds on that foundation through expanding source materials for biofuels. However biofuels, while a long-term solution, won't do much to cut your heating bill or save a manufacturing job this year. We must do more than lower the thermostat. We need to responsibly produce our own clean burning natural gas.

Natural gas prices are excessive because our rapidly growing demand is outstripping our flat production. Demand is expected to grow by over 30%; however, the Energy Information Administration reports that the U.S. natural gas drilling rig count has doubled since 1998, but production has declined by 1.5%. This shows that we're getting all we can out of the available fields, and it is not enough.

This shortfall of supply isn't because we don't have the reserves—Minerals Management Service estimates that we have 621.1 trillion cubic feet (Tcf) of remaining undiscovered, technically recoverable gas, 419.9 Tcf of which is in Federal offshore waters. That's enough natural gas to heat 60 million homes for 121 years. Unfortunately, much of this is located in offshore areas which Congress or the President has banned access.

The ban was imposed in part due to safety concerns that no longer appear valid. Interior Secretary Gail Norton recently testified that, “Hurricanes Katrina and Rita confirmed that our offshore oil and gas industry produces environmentally safe energy for America. Even in the face of two back-to-back major hurricanes, all sub-surface safety valves held on the OCS and there was no significant spill from production.”

Moreover, Americans don't need any legislative action to encourage them to conserve energy—their monthly utility bill does that for them already. However, my fellow legislators and I do have a responsibility to wisely manage this nation's natural resources—your resources. With energy prices at record levels, the best use of our nation's resources is to carefully and responsibly produce the abundant energy which lies within our borders.

A first step is S. 2253, the bill I co-sponsored with Sens. Domenici, Bingaman and Dorgan, that opens the untapped portion of just one small, unexplored area 100 miles offshore in the Gulf of Mexico. Lease Sale Area 181, as it is known, has enough natural gas to heat 6 million homes for 15 years. It's plenty to lower natural gas prices while we pursue renewable fuels to power the future.

A next step would be to allow States to opt out of the moratoria to allow exploration for natural gas off of their own shores. I have co-sponsored a bill with Sens. Pryor and Warner to open up more of the OCS to natural gas exploration by providing an incentive for States to take advantage of the resources that lie off of their

coasts. It also provides additional revenues to areas where drilling is already allowed.

Senator TALENT. I hope we can get this resolved. I'll just ask the witness one question. My observation, over the years, is that we estimate how much gas, natural gas, is in a particular area. And if anything, don't those estimations tend to turn out to be kind of conservative because we find with technology, this is just historically, don't we usually—aren't we usually able to get more than we think we can get initially? There may be more than we think off-shore. If you could just answer that question, then I'll yield back.

Ms. BURTON. Mr. Chairman, historically, that is correct. We try to be very conservative in our estimates. We do estimates based on what data we have, which in some areas is very sparse data, and the geophysicists and geologists or scientists who make the estimate try to stay on the conservative side. What has happened, historically, is once an area is opened and developed, we find out there's a lot more. Deepwater Gulf of Mexico did not hold any interest for anybody until about 12-15 years ago when the technology started allowing deeper and deeper drilling. And now, the deep Gulf of Mexico is producing 67 percent of the oil produced in the gulf. It's been really a phenomenal story. So, we learn as we go. And usually, we were on the conservative side, and we find more than what we thought was there.

Senator TALENT. Well, I thank you, Mr. Chairman. Secretary Babbitt did say using natural gas for all this is like washing dishes with scotch. And if we're going to do that, we sure ought to use every effort to get as much scotch as we can. I guess that's what we're talking about. I'm happy to—you know, this is water, not gin; right, Secretary Burton? All right. Thank you, Mr. Chairman.

The CHAIRMAN. Now we're going to the new Senator from New Jersey.

STATEMENT OF HON. ROBERT MENENDEZ, U.S. SENATOR FROM NEW JERSEY

Senator MENENDEZ. Thank you, Mr. Chairman. Mr. Chairman, I know that the focus of your hearing is Lease Sale 181, but I have another primary focus. And since we have the Director here, I want to focus on that. And my primary concern is drilling, potential drilling activities on the Outer Continental Shelf, and protecting the shoreline of New Jersey. And I'm extremely troubled and disappointed by the 5-year plan issued by the Minerals Management Service, which, amongst other things, included a plan to start drilling off the coast of Virginia. Now, Madam Director, that is, for those of us in New Jersey, let me say—well, it's Virginia, but it's quite simply unacceptable to the people of New Jersey and certainly to me, and that's why Senator Lautenberg and I are introducing legislation that seeks a permanent ban on oil and gas leasing off the coast of New Jersey as well as the entire mid-Atlantic and north Atlantic planning areas.

I heard Senator Talent speak about our economy. Well, in New Jersey, I can't overemphasize how important our economy is as it relates to our beaches. The economy of New Jersey is fueled by the second largest industry in the State, which is tourism. It's a \$22 billion industry in New Jersey. It's responsible for over 430,000

jobs. That's 10 percent of all of the jobs that exist in the State of New Jersey. And the vast majority of those are clustered around the shore.

Now, our beaches are just too precious to play Russian roulette with. And a plan to drill as close as 75 miles off the coast of New Jersey is, in my mind, irresponsible, ill-conceived, and I personally will seek to fight it every way I know how.

Now, Madam Director, I was amused to see in your 5-year plan that you divide the ocean into neat little boxes. And if we could segregate it that way, it might be great, where one box belongs to Virginia, another one belongs to Maryland, another one to Delaware and so on, but, for example, an oil spill will not respect those boundaries. And 75 miles is more than close enough to affect our shores, but what is also frightening to me is the prospect of a domino effect. I've heard that one of the advantages to Lease Sale 181 is that the infrastructure's already there. We have the pipelines. We have the platforms. We could have this up and running in no time. But once the infrastructure's up in Virginia, how long before the next price spike puts pressure to open the waters off of Maryland, then Delaware and then New Jersey?

It seems to me that that is a dangerous domino effect. And it is a toehold on the entire Atlantic seaboard, which, in my mind, is a great risk.

Let me ask you two questions, Madam Director. In that proposed 5-year plan, you correctly point out that the State of New Jersey, and nearly it's entire congressional delegation on both sides of the aisle, support the continuation of the moratorium in the mid-Atlantic. But then in referring to New Jersey and Connecticut, you go on to say, and I quote, "However, these two States are no longer adjacent to this planning area." So, am I to understand that because of the administrative slicing-up of the ocean as you've had it performed by your agency, New Jersey's objections are not going to be seriously taken?

Ms. BURTON. Mr. Chairman, first, if I may, Mr. Chairman, mention that the only reason Virginia is still in the plan is because the State of Virginia is interested in commenting further, and unless we keep them in the plan, there is no dialog. So, we keep them for dialog. We cannot allow drilling off Virginia unless Congress lifts the moratorium and the President modifies his withdrawal. So, this is probably not a very feasible thought at this point. But in order to keep public comments coming, we have to keep it in the plan. So, that's why Virginia is there. Their legislature had taken—

Senator MENENDEZ. My question is, are the concerns of the State of New Jersey going to be as dismissive as your comment appears to be?

Ms. BURTON. If the impact of any activity affects States around the area of where we are, we will consult with the States. But we have to delineate which areas are offshore, any State, and so that's why we draw a line. We also have a limited staff, and we have to delineate what area part of our staff is responsible for. This is what those administrative lines do for us. But we will consult with the State if there is any reason to think that there's any impact that will happen in one State because of activity in another State.

Senator MENENDEZ. The tidal flows here flow northward, so the mirrored position of your lines does not respect the potential consequences to a State like the State of New Jersey, and I hope you'll review that. And last, in an interview you gave last September, you said that, quote, "you're not sure how successful gas drilling only would be;" is that still the way that you feel?

Ms. BURTON. The reason I said that, Mr. Chairman, is because we asked that question in our public document that asked for comments. And the vast majority of those comments were negative, folks thought that gas only was not terribly practical. It sounds like a very good idea, but what do you do when you drill and you find oil instead of gas? You really never know what you're going to find until you drill.

Senator MENENDEZ. And it's unlikely you're going to plug up the hole just because you found oil and not gas. Well, in the case of the whole Atlantic region, we would produce, based upon your own tables of endowment of technically recoverable oil and gas on the Outer Continental Shelf for the year 2006, less than half a year of oil and about 1 year or so of natural gas. The potential risk to that economy, just in one State—and I'm sure there are others who feel similarly in that respect—in my mind, could never be met by 1 year's supply of natural gas and half a year's supply of oil. Thank you, Mr. Chairman.

The CHAIRMAN. Senator, could I just clarify, 1 year's supply for America? Is that what you're saying?

Senator MENENDEZ. Yes, Mr. Chairman.

The CHAIRMAN. For the whole of it, with everything we use in the country, we'd get 1 year's supply of natural gas and oil?

Senator MENENDEZ. And half a year supply of oil. But if we were to multiply the economic consequence—

The CHAIRMAN. I understand.

Senator MENENDEZ [continuing]. Just in one State and by all those other States, I would say that the offset would be rather dramatic.

The CHAIRMAN. That's your position, and that's, obviously, to be considered. I will now give the floor to Senator Alexander.

Senator ALEXANDER. I'm going to pass, Mr. Chairman, so we can move on.

The CHAIRMAN. Thank you, Senator, I think. Could I say today, and as to the past, your performances here have been excellent. I commend you. I hope that what I see here is the way your Department is being run, and I believe so. You have some very difficult confrontations that you have, not the subject matter of this hearing. We may have to get you up here and talk about those with reference to royalties due or royalties not due in the past. We could have taken all day on that, but I hope you're working on that issue.

Ms. BURTON. Mr. Chairman, we are working on it, and I will be pleased to come and tell you what we've done and what we found out.

The CHAIRMAN. Thank you very much.

Ms. BURTON. Thank you very much.

Senator LANDRIEU. Mr. Chairman, may I just submit these two documents for the record before the next panel? One is a letter from Senator Lott and myself regarding the current issues dis-

cussed this morning, and one is a reiteration, a copy of a letter sent by our Governor on the same subject. Thank you.*

The CHAIRMAN. They'll be made a part of the record. You're excused.

Senator MARTINEZ. Mr. Chairman, one more thing I'd like to make part of the record as well, if I may, would be the proposed map that we discussed during the course of my testimony.**

The CHAIRMAN. And that'll be made a part of the record, and the staff will make sure we have sufficient time to put in the attending documents. Now, with that, we're going to call the other witnesses in all together, chairman, president and CEO of Piedmont Natural Gas, Thomas Skains, Charlotte, North Carolina; Timothy Parker, senior vice president of exploration and production for Dominion, Houston, Texas; Michael Gravitz, oceans advocate, U.S. Public Interest Research Group, from DC; and Stephen Wilson, chairman and CEO of CF Industries Holdings, Long Grove, Illinois. Gentlemen, thank you for your patience. Let's proceed. Mr. Wilson, would you proceed, please? Tell us your name, what you do, just for the record.

Mr. WILSON. I'm Steve Wilson, chairman and CEO of CF Industries Holdings, Inc., located in Long Grove, Illinois.

The CHAIRMAN. And what does that company do?

Mr. WILSON. We're in the fertilizer business, and I'll describe our operations in the course of my oral statement.

The CHAIRMAN. Proceed.

**STATEMENT OF STEPHEN R. WILSON, CHAIRMAN AND CEO,
CF INDUSTRIES HOLDINGS, INC., LONG GROVE, IL**

Mr. WILSON. Thank you, Mr. Chairman, Senators, for this opportunity to highlight the serious gas price challenge facing the U.S. fertilizer industry.

The CHAIRMAN. Thank you.

Mr. WILSON. I'm here today on behalf of my company and the Fertilizer Institute. CF is also a member of the Agriculture Energy Alliance, a broad-based coalition of 100 farm organizations and agribusinesses severely impacted by high natural gas prices. As you know, we supported the committee's work on the Energy Policy Act of 2005.

Today, we commend your recognition of the need to take direct positive action to increase U.S. natural gas supplies. Authorizing exploration and drilling in the Sale Area 181 is an essential commitment our Nation must make. The sooner this bill becomes law, and the sooner the Interior Department implements it, the sooner we will see a positive impact on production costs of fertilizer, on prices paid by U.S. farmers and on the Nation's food security. If this action is not taken, the U.S. fertilizer industry and other major U.S. manufacturing sectors will shrink further. We will continue to lose these industries and their high-paying jobs to countries where energy policy is not in production as well as consumption. CF Industries manufactures fertilizer products at major facilities in Louisiana and Florida. We have worked in partnership with these

*The letters can be found in the appendix.

**The map has been retained in committee files.

great States for over 37 years, and we want to continue operating there. We provide over 1,100 jobs at these locations to people dedicated to providing U.S. farmers with the fertilizers they need when they need them. We operate terminals and warehouses in 15 States and a nitrogen fertilizer complex in Alberta. We provide a quarter of the nitrogen fertilizer used in the United States, a third of the nitrogen used in the Midwest and 20 percent of the phosphate fertilizers applied in the Midwest.

To help you understand the importance of these fertilizers to farmers and consumers, 40 percent of U.S. crop production depends on the application of these products. And without nitrogen fertilizers, corn yields would drop an estimated 40 percent. If high natural gas prices continue, we risk putting even more of our food security in the hands of fertilizer producers in places like Saudi Arabia, Russia, Venezuela and Ukraine. Natural gas is a primary feedstock used to make ammonia, which is itself a nitrogen fertilizer and the building block of all that are nitrogen fertilizers. To be clear about this, natural gas is the key raw material, not just the energy source. Natural gas is to ammonia what flour is to bread. Today, 93 percent of the cash cost of making ammonia is the cost of the natural gas. Since the year 2000, we've seen gas prices rise from about \$2.50 per MMBtu in the gulf to recent levels between \$8 and \$15. Each \$1 increase adds about \$33 dollars in cost to a ton of ammonia. So, it's no surprise that U.S. ammonia production has fallen from about 18 million tons in 2004 to 12 million—in the 1990's, excuse me, to 12 million tons in 2004, to an annualized rate during the second half of last year of less than 10 million tons.

While U.S. production has declined, imports have risen by 80 percent since 2002, in many cases, coming from unstable offshore regions. Without question, American farmers have been hurt severely by increasing fertilizer prices. The Agriculture Department reports that the average spring price of ammonia to U.S. farmers almost doubled since 2002 to \$416 per ton in 2005. Average prices this spring may be higher. In response to previous natural gas price increases, CF has invested over \$125 million in efficiency improvements in Louisiana and Florida. We are strong advocates of energy conservation, and we practice it every day. We are participating in a new DOE-Save Energy Now program to be sure we haven't missed anything. Despite these steps and the fact that our nitrogen facilities are first-class, globally-competitive assets, we cannot conserve our way out of this situation. It is the price of natural gas, not the lack of technology, that has created this serious situation. CF spent about a billion dollars in the 1990's improving and expanding our operations. Unfortunately, like other U.S. energy-intensive manufacturers, we must now look offshore for future projects.

I'd like to conclude with this observation: It is irrational to continue to increase demand for natural gas while restricting access to supply. The free market will solve this problem if government allows it to do so. We strongly support your decision to face this issue directly. This Nation cannot continue to use ever-greater amounts of natural gas without seeking new supply.

Mr. Chairman, the action that you and your co-sponsors are proposing is absolutely critical. It will make a statement that the market needs to hear, that the United States will support the production of more natural gas, which we all know remains an abundant national resource. I would be happy to answer any questions you have about our industry and this issue, and we look forward to working with you.

[The prepared statement of Mr. Wilson follows:]

PREPARED STATEMENT OF STEPHEN R. WILSON, CHAIRMAN AND CEO,
CF INDUSTRIES HOLDINGS, INC.

CF Industries is pleased to have the opportunity to discuss the urgent situation facing the U.S. fertilizer industry. The volatility and level of U.S. natural gas prices, virtually unprecedented in the history of our country, resulted in the permanent closure of almost 40% of U.S. nitrogen fertilizer capacity between 1999 and 2005. In the current environment this situation threatens an efficient U.S. industry and the thousands of workers who support it.

It is important to state up front that, while my comments focus on the fertilizer industry, they actually address a broader issue—food security. An estimated 40 percent of U.S. crop production is directly attributed to the use of commercial fertilizers. Consequently, if high natural gas prices continue to result in the outsourcing of the U.S. fertilizer industry, we as a country are basically putting our food security in the hands of major fertilizer export countries such as Saudi Arabia, Russia, the Ukraine and Venezuela.

CF also is appearing today on behalf of the Fertilizer Institute (TFI). TFI represents fertilizer from the plants where it is produced to the plants where it is used—and all points in between. Producers, retailers, trading firms and equipment manufacturers, which comprise TFI's membership, are served by a full-time Washington, D.C., staff in various legislative, educational and technical areas as well as with information and public outreach programs. Both CF Industries and TFI are also members of the Agriculture Energy Alliance, a broad-based coalition of 100 farm organizations and agribusinesses severely impact by high natural gas prices. The following summarizes the key points in this statement:

1. Natural gas is the raw material used in the production of nitrogen fertilizer, accounting for over 93 percent of the total cash cost of production.
2. High and volatile natural gas prices have a serious impact on the nitrogen fertilizer industry.
3. American fertilizer manufacturing creates high paying jobs.
4. Loss of this strategic U.S. industry leaves American farmers vulnerable.
5. Energy conservation and fuel efficiency are priorities at CF Industries manufacturing facilities.
6. The Energy Policy Act of 2005 was helpful, but new natural gas supply is needed.
7. Congress needs to continue to change energy policy to increase supply and decrease demand for natural gas. Opening up Sale 181 area for production is a direct, positive action to increase the nation's domestic natural gas supply.

BACKGROUND

CF Industries Holdings, Inc., headquartered in Long Grove, Illinois, is the holding company for the operations of CF Industries, Inc. We are a major producer and distributor of nitrogen and phosphate fertilizer products. We operate world-scale nitrogen fertilizer plants in Donaldsonville, Louisiana and Medicine Hat, Alberta, Canada; conduct phosphate mining and manufacturing operations in Central Florida; and distribute fertilizer products through a system of terminals, warehouses, and associated transportation equipment located primarily in the midwestern United States. We were an agricultural cooperative for 59 years until we became a New York Stock Exchange listed public company last August.

In Louisiana, we employ approximately 450 full-time and contract workers. The facility contributes \$48 million a year in wages and \$12 million in sales and property taxes to the local community. The Company as well as the employees of this facility have been an integral part of the surrounding communities since 1966. During a normal production year, the facility converts approximately 78 million MMBtu of natural gas into 2.27 million tons of ammonia, 1.75 million tons of granular urea, and 2.35 million tons of UAN solutions. At capacity, the Complex has a daily re-

quirement of over 200,000 MMBtu of natural gas as a feedstock and fuel, which at \$8 per MMBtu represents a daily natural gas bill of \$1.6 million. CF accounts for almost one-fourth of the nitrogen fertilizers applied in the United States and nearly one-third of the nitrogen fertilizers applied in the primary growing areas of the Midwest.

We also mine and manufacture phosphate fertilizers in Hardee County and Plant City, Florida and operate a distribution facility at the Port of Tampa. The Company has had operations in Florida since 1969. At Hardee, we employ approximately 200 full-time and contract workers. This facility accounts for \$18 million per year in wages and \$8 million in severance, sales and property taxes. During a normal production year, the mine produces over 3.6 million tons of phosphate rock. At Plant City, we currently employ approximately 500 full-time and contract workers. This facility accounts for \$46 million a year in wages and \$2 million in sales and property taxes. During a normal production year, the facility produces 2.5 million tons of sulfuric acid, 1.0 million tons of phosphoric acid, and 2.0 million tons of diammonium phosphate (DAP) and monoammonium phosphate (MAP). The Complex consumes over 400 thousand tons of ammonia annually. In Tampa, CF currently employs 35 full-time and contract workers. This facility accounts for \$3 million a year in wages and \$0.7 million in wharfage and property taxes. During calendar year 2005, the facility handled over 1.1 million tons of dry fertilizer product and 600 thousand tons of ammonia. We account for 14% of the phosphate fertilizer applied in the U.S. and approximately 20 percent of the phosphate applied in the Midwest. Additionally, we are an exporter of phosphate fertilizer products.

NATURAL GAS IS THE RAW MATERIAL USED IN THE PRODUCTION OF NITROGEN FERTILIZER

My purposes today are first to discuss the serious impact that the unprecedented high level and volatility of natural gas prices has had and is having on both the fertilizer industry and the American farmer, and second to discuss steps that Congress can take to alleviate the current situation. While I will address the latter in more detail later in my testimony, let me simply state that, as a country, we need to do everything possible to expand our supply of natural gas as quickly as possible.

To fully understand why high and volatile natural gas prices create such fundamental difficulties for the nitrogen fertilizer industry, a basic understanding of our products and manufacturing process is necessary.

Natural gas is the primary feedstock in the production of virtually all commercial nitrogen fertilizers manufactured in the United States (Figure 1).^{*} It is important to be very clear about this: natural gas is not simply an energy source for us; it is the raw material from which nitrogen fertilizers are made. This distinguishes our industry from most other large consumers of natural gas in the United States. For example, the steel industry uses natural gas as a heat source, but can shift to other energy sources such as fuel oil.

Our production process involves a catalytic reaction between elemental nitrogen derived from the air and hydrogen derived from natural gas. The primary product from this reaction is anhydrous ammonia (NH₃). Anhydrous ammonia is used directly as a commercial fertilizer or as the basic building block for producing virtually all other forms of nitrogen fertilizers such as urea, ammonium nitrate and nitrogen solutions, as well as in the production of DAP and MAP. Natural gas is also used as an energy source to generate heat when upgrading anhydrous ammonia to urea.

Natural Gas (CH₄) + Air (N₂) = Anhydrous Ammonia (NH₃)

Because natural gas is the source of the hydrogen used in producing nitrogen fertilizers, it is by far the primary cost component. Today, in the case of ammonia, natural gas accounts for 93 percent of the total cash cost of production (Figure 2).

HIGH AND VOLATILE NATURAL GAS PRICES HAVE A SERIOUS IMPACT ON THE NITROGEN FERTILIZER INDUSTRY

Given this heavy reliance on natural gas, high and volatile natural gas prices have a serious impact on the domestic fertilizer industry. As you are well aware, natural gas prices began to increase from historical levels during calendar year 2000. Although prices moderated in 2001, they have been climbing ever since and in recent months spiked to over \$15 per MMBtu (Figure 3). To put this into perspective, the average natural gas price during all of the 1990s was just over \$2.00 per MMBtu. This climb in natural gas prices has forced U.S. fertilizer production costs

^{*} Figures 1-8 have been retained in committee files.

to unprecedented levels. For example, ammonia cash production costs have jumped from a historical average of approximately \$100 per ton to an average over the last six months of just under \$400 per ton and a high in December of \$495 per ton.

Not surprisingly, over this period of high prices and intense volatility, the industry began to shut down production in response (Figure 4). Nearly 40 percent of the industry's nitrogen capacity permanently closed between 1999 and the current run-up in natural gas prices in 2005. Most of the remaining facilities have had to run at less than full capacity in recent months. During the last half of calendar year 2005, U.S. ammonia production totaled 4.9 million tons compared to 6.0 million tons for the same period in 2004 and average July-December production volume during the 1990s of 8.7 million tons.

While U.S. production was already at low levels, the situation was exacerbated by Hurricanes Katrina and Rita. Immediately after Rita hit the Gulf coast, natural gas prices spiked to over \$15 per MMBtu. The spike in gas prices combined with shortages of natural gas resulted in U.S. nitrogen fertilizer production dropping to its lowest level in over 30 years (Figure 5).

The sharp rise in natural gas prices and the resulting curtailment of U.S. fertilizer production also has had a dramatic impact on fertilizer prices throughout the marketing chain and, in particular, at the farm level. According to U.S. Department of Agriculture data, the U.S. average spring price to farmers for ammonia climbed from \$250 per ton in 2002, to approximately \$375 per ton in 2003 and 2004, to \$416 per ton in 2005. Similarly, urea prices from 2002 to 2005 climbed from \$191 per ton to \$332 per ton and UAN solutions prices from \$148 per ton to \$243 per ton. Although farm-level data is not yet available for 2006, average prices this spring will likely be even higher (Figure 6).

While natural gas prices have had a dramatic impact on nitrogen fertilizer cost, they have also had a significant impact on the cost of phosphate fertilizers, DAP and MAP, that we produce in Central Florida. DAP and MAP are produced using ammonia and contain 18 percent and 11 percent nitrogen, respectively. As a result of the sharp increase in ammonia cost, the cost of producing DAP and MAP and the cost of these products at the farm level have also risen significantly. For example, DAP production cost has increased from approximately \$125 per ton in 2002 to just under \$200 per ton in December 2005. Similarly, farm level prices for DAP during the spring season have jumped from \$227 per ton in 2002 to \$303 per ton in the spring of 2005.

AMERICAN FERTILIZER MANUFACTURING CREATES HIGH PAVING JOBS

Clearly, a scenario of sustained high natural gas prices could lead to more U.S. fertilizer plant closures and abandonment of infrastructure in rural communities. This would result in the further loss of high-paying, stable jobs in host communities. For example, the chemical industry in Louisiana (which depends heavily on natural gas) provides nearly 30,000 jobs at an average annual salary of nearly \$55,000 and creates an additional 6.8 jobs for every direct job in the chemical industry. These companies also bring \$800 million to the state treasury and local governments through household earnings generated directly and indirectly by the chemical industry.

In Florida, over 6,000 employees are directly employed by the phosphate industry, with an average total compensation of \$72,000. The industry also supports an additional 5 jobs for each phosphate job. The Port of Tampa attributed more than 41,000 jobs and \$5.9 billion in total economic benefits to phosphate and related chemical industries in 2001. The industry also paid over \$85 million in severance, property, sales and other taxes and fees in 2003.

LOSS OF THIS STRATEGIC INDUSTRY LEAVES AMERICAN FARMERS VULNERABLE

However, the most significant impact would be on the American farmer. The continued loss of production from the domestic nitrogen industry would force farmers to rely on a highly uncertain and highly volatile world market with no assurance that they will be able to obtain enough product to meet their full demand. This is particularly important when considering the importance of nitrogen to farmers. For example, according to the University of Illinois, 30-50 percent of corn yields can be directly attributed to nitrogen fertilizer.

Since the 1940s, farm demand for nitrogen fertilizers has always been supported by a large, efficient domestic fertilizer industry. For example, during the 1990s approximately 70-75% of the nitrogen fertilizers consumed by American farmers was supplied by domestic production. Since most of the nitrogen fertilizer in the U.S. is consumed within very short time frames in the fall and spring application seasons, an extensive distribution and storage infrastructure has developed to move product

from the manufacturing plants to the major fertilizer consuming regions in order to bridge this seasonal gap. This system of production facilities and downstream infrastructure was designed specifically to ensure that American farmers would have adequate supplies of fertilizers at the right time and at the right place.

On the other hand, offshore supply was largely constructed to compete opportunistically in the world market. In other words, offshore exporters have little, if any, commitment or infrastructure to serve the U.S. market and generally sell wherever they can get the highest price netted back to these plants. That means that supply can and would be shifted from U.S. customers to other global customers based on relative price movement.

Imports also are subject to changes in world economic conditions, fluctuating exchange rates and political and/or policy changes in other countries. This point is particularly important when looking at the list of major nitrogen fertilizer exporting countries. These include Russia, Ukraine, Saudi Arabia, Qatar, Kuwait, Oman, the United Arab Emirates, Indonesia and Venezuela.

Higher import volume does not mean lower price. This can be demonstrated by looking at import volumes versus product prices. Since 1999 when U.S. natural gas prices first began to escalate, nitrogen imports have almost doubled from 6.3 million tons to a record volume last year of 11.3 million tons, with imports now accounting for just over half of the U.S. total nitrogen supply (Figure 7). During this same time period, average farm level prices have not gone down but have escalated at a record pace. Ammonia, urea and UAN solutions prices have climbed by 89 percent, 87 percent and 83 percent, respectively, since 1999 (Figure 8). This has forced a typical farmer's total fertilizer bill to increase by more than 50 percent during the same time period.

ENERGY CONSERVATION, FUEL EFFICIENCY AND OTHER INVESTMENTS ARE TOP PRIORITIES AT CF INDUSTRIES MANUFACTURING FACILITIES

Our company has focused for many years on improving the conversion of natural gas into fertilizer and on energy efficiency in general. We have a very strong economic interest in doing so. CF has completed several energy efficiency projects and continues to look for opportunities to conserve energy at all of our facilities.

The preponderance of natural gas we purchase is used as a chemical feedstock, rather than as an "energy" source at our Donaldsonville, Louisiana Nitrogen Complex. Our production process uses that feedstock gas as efficiently as possible. Each of our four Donaldsonville ammonia plants was designed to produce 1,000 short tons per day of anhydrous ammonia at an average energy consumption of 37.8 MMBtu per ton. As a result of investing over \$100 million in efficiency improvement and debottlenecking projects in Louisiana, production capacity has been increased by 62% above the original design, while energy consumption has decreased by 13% per ton. We are investigating additional energy improvement projects that could reduce energy consumption by another 6% per ton from current levels.

Despite these steps and the fact that our nitrogen facilities are first class globally competitive assets, we cannot conserve our way out of this situation. It is the price of natural gas, not the lack of technology, that has created this serious situation. CF spent about \$1 billion in the

1990's improving and expanding our operations. Unfortunately, like other U.S. energy-intensive manufacturers, we must now look offshore for future projects.

In Florida the company spent \$28 million on efficiency improvements. At our Plant City Complex, CF installed a cogeneration unit to generate electricity from waste heat (steam). The unit eliminated a monthly power bill of approximately \$1.5 million at today's energy costs and converted the facility into a net exporter of electricity. CF also installed air preheaters to utilize high pressure steam to heat dryer air and eliminate the use of natural gas to heat air, resulting in a savings of \$2 million per year at today's natural gas cost. Heat exchangers were installed at Plant City to utilize waste heat (hot water) from scrubbing systems to vaporize ammonia in lieu of steam. The savings when converted to electricity are worth approximately \$1 million per year at today's energy costs.

CF Industries recently was selected to participate in April 2006 in the Department of Energy's "Save Energy Now" program in which DOE sends experts to the nation's most energy-intensive manufacturing facilities to conduct energy savings assessments. The purpose of the assessments is to identify immediate opportunities to save energy and money, primarily by focusing on steam and process heating systems.

THE ENERGY POLICY ACT OF 2005 WAS HELPFUL BUT NEW NATURAL GAS SUPPLY IS
NEEDED

H.R. 6, the *Energy Policy Act of 2005*, was an important first step in moving our country towards a comprehensive energy policy. The energy bill facilitates the diversification of energy sources used to generate electricity, including encouraging development of alternative energy sources, and promotes the efficient use of energy in our homes, businesses and government facilities. These provisions should alleviate some of the demand pressure on natural gas.

The energy bill also has specific provisions to increase natural gas supplies including:

- creating incentives for natural gas production from deepwater wells and from ultra-deep wells in shallow water;
- allowing for more expedited leasing and permitting of production from federal lands and
- improved management of federal oil and gas leasing programs by all federal agencies;
- clarifying liquefied natural gas (LNG) terminal siting and safety responsibilities among federal and state agencies; and
- facilitating the expansion of natural gas delivery infrastructure.

Despite these initiatives, high natural gas prices remain the most serious threat to the fertilizer sector and to farmers in general, since the energy shocks of the 1970s. We need an increase in supply and a resulting reduction in price to ensure an adequate and stable domestic supply of nitrogen fertilizer for our farmers into the future.

CONGRESS SHOULD CONTINUE TO CHANGE ENERGY POLICY TO INCREASE SUPPLY AND
DECREASE DEMAND FOR NATURAL GAS

So what can Congress do now? Put simply, Congress should continue the good work begun in the *Energy Policy Act of 2005* and take further measures to reduce gas demand and increase gas supply. With regard to the issue of demand, Congress should continue to encourage the electric power industry to explore and invest in alternative technologies for power generation, including “clean coal” and next-generation nuclear plants. These technologies offer the best hope for limiting the increasing natural gas demand of the electric power sector.

With regard to the issue of supply, Congress should also take action to open up the Sale 181 area. This would be a direct, positive action to increase the nation’s domestic natural gas supply to help relieve the high prices now pressuring American consumers. Allowing exploration and development in the Sale 181 area is an essential commitment that our nation must make.

Back when the full Sale 181 area was analyzed in the 1990’s, it was determined that it had the potential to produce 7.8 TCF of natural gas and 1.9 billion barrels of oil. However, these numbers may be much higher today. They are based on the 1995 resource estimates and oil and gas prices that were much lower than today, and they did not include the data now available from the leasing that has gone on in a quarter of the original area. These natural gas resources belong to all Americans and should be developed for the benefit of the entire nation. Responsible development of natural gas resources represents the most significant policy option before Congress to address current and future natural gas needs in this country. We believe that opening the Sale 181 area would send a strong signal to natural gas markets and could increase the elasticity in North American natural gas markets.

CONCLUSION

For those of us in the fertilizer industry, “the future is now.” We encourage this Committee, the Congress, and the Administration to continue to look aggressively for ways to expedite those projects that will increase natural gas supplies and help get supplies to the fertilizer industry in the near term.

CF Industries supports the expedited opening of the Sale 181 area. We believe that access to these reserves can be of substantial benefit in meeting the nation’s energy needs without compromising other legitimate interests, including environmental protection. The Sale 181 area should be opened to environmentally responsible production.

Congress also should continue its efforts to support the construction of new LNG terminal facilities and the proposed Alaska Natural Gas Pipeline.

In summary, it is imperative that adequate supplies of natural gas be developed for the benefit of the American farmer given that almost one-third of U.S. crop production is derived from nitrogen fertilizer.

Thank you for the opportunity to discuss these issues with you today. We look forward to working with you over the next few months, and I would be pleased to answer any questions you may have on the fertilizer industry and natural gas pricing issues.

The CHAIRMAN. Thank you.

Mr. WILSON. The quantities are quite large. There is a chart in our written testimony that shows the quantities, and the quantities lost in production are indicated in that chart on that side.

The CHAIRMAN. Thank you.

Mr. Gravitz.

**STATEMENT OF MICHAEL GRAVITZ, OCEANS ADVOCATE,
U.S. PUBLIC INTEREST RESEARCH GROUP**

Mr. GRAVITZ. Thank you, sir. Thank you. Good morning, Mr. Chairman and other Senators. My name is Michael Gravitz, and I'm the oceans advocate from U.S. Public Research Group. We are the national program and lobbying arm for the 30 State PIRGs. I appreciate the opportunity, obviously, to testify before you today and to be available to answer any questions that you might have. U.S. PIRG opposes this bill for a number of important reasons. We believe that the drilling program outlined in your proposal constitutes a measurable hazard to the marine environment of the eastern Gulf of Mexico and to nearby coastal resources like beaches and environmentally sensitive areas and species.

In other words, the drilling program proposed here today will lead to a certain amount of environmental damage. You don't have to take my word for it. The MMS has studied, as part of its proposals to Lease Area 181, what would happen if oil is released, either from a pipeline or a tanker or a barge or a platform in the Lease Sale Area 181. It's called an oil-spill risk analysis. What they did in the study was to model a hypothetical oil spill, where it would go over a 3-day, 10-day or 30-day period if it came from any one of 600 different points of release within Lease Sale Area 181, and using real wind and current data over a 9-year period. In other words, real data about really how the winds blow and how the currents go. The model projected where oil would go in the gulf and what coastal resources it would touch.

And their conclusion, and I quote from the report, is this: "Spills from all the launch areas have an average probability of contacting the shoreline in the study area of 31 to 59 percent within 30 days of occurrence. With increased travel time, the complex patterns of wind and ocean currents produce eddy-like motions of the oil spills and multiple opportunities for a spill to make contact with any given environmental resource or shoreline segment."

We believe that this MMS report really underestimates the true probability of oil striking a coastal resource because the MMS report assumed that only about 240 or 250 million barrels of oil would be produced from Lease Sale Area 181, when in fact, from just this smaller area, we've been told that about a billion barrels of oil will be produced. So, we think, actually, this report probably underestimates, significantly, the occurrence of an oil spill striking the shoreline. And the shore that it's most likely to strike is the California panhandle right at the border or between Alabama and Florida. Also it could strike places like Mobile Bay and the State

offshore waters of Florida. There is a table in my testimony that gives you more details about this.

Our conclusion is that there is a plausible likelihood of an oil spill, a significant oil spill, above 1,000 barrels, reaching coastal resources as a result of this drilling program. And it really will be your decision as to whether this will happen or not. Turning to the second issue, the—yes, sir?

The CHAIRMAN. Could I make sure that I got your word, plausible? What was the word, plausible?

Mr. GRAVITZ. Yes.

The CHAIRMAN. What's followed after the word plausible?

Mr. GRAVITZ. I'm sorry. I said I believe that it is very plausible that, if oil is developed in this area of Lease Sale 181, that there will be some oil released from a tanker, a barge, a platform or a pipeline striking some of these areas that we've mentioned. It's not my thinking.

The CHAIRMAN. Oh, I understand, but the word's plausible, and it's 1,000 barrels is the—is plausible.

Mr. GRAVITZ. One thousand barrels or over, sir.

The CHAIRMAN. Okay.

Mr. GRAVITZ. It's a very interesting report, and I recommend that your staff look at it carefully.

The CHAIRMAN. We will examine it.

Mr. GRAVITZ. If I may go on, we believe that the natural gas estimated to be recoverable in this area will do nothing—little or nothing to help us deal with the high energy prices that we have today. It won't solve the problem of high natural gas prices in the short run, 1 to 3 years, because the gas can't be drilled that quickly. And we don't believe it can reduce prices over the long-term, say 5 to 25 years, because there isn't enough gas in this area to really change the price of natural gas on the open market. If we assume a 20-year lifetime for the field, six TCFs in the field, that's about 0.3 TCF of production of natural gas per year, and that's about 1½ percent of what our Nation consumes.

Again, there's a wonderful study done by the Energy Information Administration that says what would happen if all of the offshore areas of the lower 48 States were opened up. And essentially, what it concludes is that the price of natural gas on the market would go down by four cents per 1,000 cubic feet. If you translate that into today's prices for natural gas, you'd expect a small downward bump in price of about seven to ten cents per 1,000 cubic feet. There is an effect, it's not a particularly large effect, it's not a substantial effect, and it's not a very quick effect, and frankly, we believe that that level of downward price revision is really well within the "noise" that you would expect to see within the normal marketplace.

The CHAIRMAN. What study is that?

Mr. GRAVITZ. It was done by the Energy Information Administration in 2001, and it utilized the National Energy Modeling System. I'd be glad to provide that information to the—

The CHAIRMAN. We're going to have the man that runs that up here to testify tomorrow. We'll ask him about it. Thank you.

Mr. GRAVITZ. With the other time that I have available, I wanted to make the point that the vast majority, 80 percent, of the Na-

tion's undiscovered technically recoverable OCS gas is located in areas that really are already open to drilling, according to the Department of the Interior's 2006 report to Congress. There are about 86 TCF of undiscovered—in other words UTRR—gas resources in the areas under moratorium, in contrast to almost 500 TCF of reserves or reserve appreciation and UTRR in the total OCS.

So, in other words, only 20 percent of the gas that we know is out there is off limits to exploration. And I think that, reasonably, you've got to ask this question, is 20 percent of the gas that we know we have too high a price to pay for preserving some wonderful and very important natural resources off of our coasts. I would propose that the answer to that question is no, it's not too high a price to pay. That's a decision, obviously, that members of this committee will have to make.

But really, in essence, it comes down to this: When do you stop, where do you draw the line, and what is the price that you are willing to pay to protect what we consider to be very important natural resources? The natural resources that we're talking about are things off the coast of Florida. They are beaches. They are turtles, whooping cranes, bald eagles, brown pelicans and manatees.

Finally, U.S. PIRG firmly believes that the focus of energy development efforts should be on conservation savings and the development of alternative sources of clean energy, not drilling for new sources of energy. We could save as much oil as estimated to be available in this area, 930 million barrels, in less than 2 years of U.S. consumption simply by requiring automakers to close the light truck loophole. That is, making—asking that SUVs and minivans and pickups meet the same gas mileage standards as cars. So, we strongly support efforts to pass legislation which saves energy and encourages the switch to cleaner sources of energy. In essence, we propose that you would replace the energy that you would derive from this area by saving energy, conserving energy and moving to alternative sources. That's the end of my testimony. Thank you.

[The prepared statement of Mr. Gravitz follows:]

PREPARED STATEMENT OF MICHAEL GRAVITZ, OCEANS ADVOCATE, U.S. PUBLIC
INTEREST RESEARCH GROUP

Good morning Senators and staff. My name is Michael Gravitz and I am the Oceans Advocate for the U.S. Public Interest Research Group, the national program and lobby office of the State PIRG's. I appreciate the opportunity to appear before you today to testify on this bill and to answer any questions you may have for me. With your permission I would like my printed testimony to be entered into the record as I will considerably shorten my remarks. I have been asked to confine my remarks to a review of S. 2253, a bill "To require the Secretary of Interior to offer the 181 Area of the Gulf of Mexico of oil and gas leasing" and I will attempt to do so, though there are a number of other bills and Administration plans that include some of the same areas covered in this bill. So it seems proper to briefly refer to some of those proposals as well.

UNDERSTANDING OF THE AREA COVERED BY S. 2253 AND TIMING OF LEASE SALE

I am not aware of any official map, acreage delineation, or official estimate of energy resources that was released concurrent to the introduction of this bill. Newspaper sources and committee staff have stated that the area covers approximately 3.6 million acres and contains an estimated 6 TCF of natural gas and 930 million barrels of oil. From the bill, the areas boundaries are: the Military Mission line to the east, to the north a line at least 100 miles south of the coast of Florida's panhandle, to the west the western edge of Lease Sale 181, and to the south the southern boundary of Lease Sale 181.

According to the proposed bill, the area would be offered by lease 'as soon as practicable, but not later than 1 year, after enactment . . .'. Let's assume leasing is completed by early 2007, one year from now. The interval between leasing and production can vary widely for a number of reasons, and U.S. PIRG has not studied this issue. But we believe, based on the most optimistic industry practices, that geophysical exploration might begin in 2007 or 2008, exploratory drilling by 2009 or 2010, and production could begin a year thereafter in 2011 or 2012. Therefore at the earliest, we believe there would be a five or six years interval until we saw the first production from this area. This would be a very optimistic timeframe.

OVERVIEW

U.S. PIRG opposes this bill for a number of important reasons:

- A drilling program of this size constitutes a measurable hazard to the marine environment of the eastern Gulf of Mexico and to nearby coastal resources like beaches and environmentally sensitive areas and species. In other words, the drilling program proposed will lead to a certain amount of environmental damage detailed below.
- The natural gas and oil (6 TCF and 930 million barrels respectively) estimated to be recoverable in this area *will do little or nothing to help us deal with high energy prices*. It won't solve the problem of high natural gas prices in the short run (1-3 years) because the gas can't be drilled that quickly, and can't reduce prices significantly over the longer term (say 5-25 years) because there isn't enough gas there compared to either annual U.S. production or consumption. Assuming a 20 year life for production of natural gas, the area would yield approximately 0.3 TCF on average per year which is approximately 1.5% of the total natural gas that the 2006 Annual Energy Outlook projects to be produced from all sources (both OCS and land) in 2015. I have used 2015 because it will take about 7 or 8 years after leasing for this field to be really brought on line.

In economic terms, over the 20-40 year life of the field that would be developed in Lease Area 181, the annual amount of gas or oil produced would not meaningfully shift the supply curve down and to the right on a typical price/quantity supply chart.

Let's say, for the purposes of this discussion, that the price of natural gas were extremely responsive to even small changes in supply like this, that is very price elastic with respect to supply. Let's say, again for the purposes of this discussion, that a 1.5% increase in supply could result in a 3% decline in price. This would be a price elasticity of 2.0. With natural gas at approximately \$8.00 per thousand cubic feet, this would mean a decline of \$0.24 per thousand cubic feet, surely not the major price relief that is claimed for this bill.

A Department of Energy, Energy Information Administration study done in 2001 (*U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply*, SR/OIAF/2001-06) compared the price of natural gas with the OCS moratoria areas kept out of production and the price of natural gas with all of the moratoria areas opened for drilling in the 2007-2012 MMS 5 Year Plan. For the study, this meant that 58 TCF of gas was added to the existing 175 TCF of undiscovered technically recoverable resources thought to exist in the lower 48 states at the time, an increase in available gas of 33% and almost 10 times the amount of gas that is thought to exist in the Domenici-Bingaman area.

With all of its supply and demand information, DOE's National Energy Model Modeling System (NEMS) predicted that the price of natural gas would be \$3.26 per thousand cubic feet in 2020 *without* the gas under moratorium and \$3.22 per thousand, or four (4) cents less with access to the additional gas in moratoria areas. This is a predicted price drop of a 1.2% from the addition of 10 times more gas reserves than would be freed up under this bill. Now clearly the model didn't get the price of natural gas correct for 2006 let alone 2020 as natural gas is now approximately \$8.00 per thousand cubic feet. But if the price of gas is \$8.00 then the savings from having all of the lower 48 States OCS opened up is a decrease of around ten (10) cents per thousand cubic feet. Not nothing. But also not terribly significant either.

This is hardly major or even significant price relief. The effect is of such a magnitude that it would probably be drowned out by marketplace 'noise' or normal fluctuations or by catastrophic events we have no control over like the impact of a hurricane Katrina. Catastrophic events that effect production or distribution assets clearly have the ability to move prices much more than a mere addition of 5 TCF of technically recoverable resources.

For the oil resources estimated to be in the area, 930 million barrels is approximately 47 days worth of current U.S. consumption at our daily usage of

approximately 20 million barrels per day. Of course, when the field comes on line, consumption may be higher and the actual benefit to the U.S. a briefer period of time.

- The vast majority—80%—of the nation's undiscovered technically recoverable OCS gas is located in areas that are already open to drilling, according to the Department of Interior's 2006 *Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources*. There are estimated to be 86 TCF of Undiscovered Technically Recoverable Resources (UTRR Mean Estimate) in all OCS areas withdrawn from leasing compared to 479 TCF of Reserves, Reserve Appreciation and UTRR in the total OCS of the U.S. Therefore, all the potential gas placed off limits to drilling at present constitutes less than 20% of the gas thought to exist in the OCS.
- The area covered in this bill will not contribute appreciably to the supply of natural gas available for production in the Gulf. According to reports, the field may have 6 TCF in it; approximately 2% of the total natural gas (290 TCF of natural gas in the entire Gulf OCS are categorized as reserves, reserve appreciation, and undiscovered technically recoverable) thought to remain in the entire Gulf.
- U.S. PIRG firmly believes that the focus of energy development efforts should be on conservation savings and alternative sources of clean energy, not drilling for new sources. We could save this much oil (930 million barrels) in less than two years simply by requiring auto makers to close the light truck loophole—that is, make SUV's, minivans and pickups meet the same gas mileage standards as cars. We support efforts to pass legislation which saves energy and encourages the switch to cleaner sources of energy.

To summarize these main objections, U.S. PIRG believes that drilling in this large area of 181 is likely to damage the marine environment of the Gulf and coastal beaches which the local tourist economy depends on. The program will fail to have an appreciable impact on oil or natural gas prices in the short or long term. Moreover, the proposed drilling is bad energy policy because it does nothing to either save energy or produce new clean energy such as would come from wind, solar or biomass sources. Even the President has admitted that the U.S. is addicted to oil. Drilling for more oil only feeds the habit and does nothing to help solve the underlying problem.

ENVIRONMENTAL PROBLEMS

Environmental problems which come with oil and gas drilling fall into three categories:

- One-time problems related to exploration and drilling.
- Chronic problems related to oil spills from production and accidents
- Catastrophic problems related to extreme weather events such as the hurricanes Katrina and Rita that pummeled the Gulf last summer

One-time problems

In order to explore for offshore energy, companies employ seismographic techniques that use high energy sound to penetrate the earth's layers. These surveys can damage local fish populations and the hearing and navigation of large marine mammals. Some of these large marine mammals like sea turtles and whales do live and travel through the eastern Gulf.

Drilling platforms each produce an average of 180,000 gallons of drilling mud and cuttings for every well drilled. Most of this waste is dumped back into the ocean even though it contains toxic metals including mercury and lead. Significant concentrations of these metals can be found around drilling platforms in the central and western Gulf and have been shown to bioaccumulate their way up into the food chain into fish. Because oil rigs tend to attract populations of fish and because the pollution is concentrated around rigs, the problem is exacerbated.

Drilling produces a lot of air pollution from the equipment that drives the rig. Each rig produces 50 tons of nitrogen oxides, 13 tons of carbon monoxide, 6 tons of sulfur dioxide, and five tons of volatile organic hydrocarbons during the exploration phase. Put lots of rigs together and you get quite a lot of air pollution coming from one area.

Construction of oil and gas pipelines to bring the materials back to shore requires seafloor disturbance which suspends sediments and can create mounds on the seafloor which interfere with commercial fishing. Nearshore habitat can be destroyed or damaged wherever pipelines come on land. Many experts think that bringing gas and oil pipelines onshore through coastal wetlands has been one of the prime reasons for the rapid erosion and loss of protective wetland areas in Lou-

isiana. These areas protect the shoreline and neighboring communities from the damage of extreme storm events.

Onshore oil and gas processing facilities can contribute to air and water pollution and industrialize the shoreline. If oil and gas from this lease sale move back to the Louisiana shore through existing pipelines some of these problems could be avoided. But then, of course, you are typically using increasingly aged pipelines as you get closer and closer to shore where the pipelines were built first.

Chronic problems

Chronic problems result from oil spills from production platforms, pipelines and other transport back to shore by barge or tanker. In addition, active wells often release 'produced water' back into the environment. These produced waters coming from deep below the seabed can contain heavy metals and in the Gulf sometimes contain elevated levels of radium compounds which are released into the environment.

Over time the oil and gas industry have improved technology, vigilance, and understanding of how to prevent spills by leaps and bounds. However, spills still occur every year in the Western and Central Gulf. Interestingly, spills are 7 to 10 times more likely to come from pipelines than platforms and about 5 times more likely to come from tankers or barge transportation than platforms. Unfortunately, pipelines which are the most difficult element in the entire chain of production to monitor and correct are also the most likely source of spills according to this information which summarizes spill data over 15 years. And as more new fields are opened farther and farther offshore which connect to old pipelines closer to shore, one might expect the older inshore pipelines to be a larger source of the problem. Obviously leaks and spills closer to shore are more harmful to coastal resources than ones farther out.

Spill Source	No. of spills equal/more than 1,000 barrels spills/billion barrels	No. of spills equal/more than 10,000 spills/billion barrels
OCS Platforms	0.13	0.05
OCS Pipelines	1.38	0.34
OCS Tankers	0.72	0.25

Source: *Oil Spill Risk Analysis: Gulf of Mexico Outer Continental Shelf Lease Sales, Eastern Planning Area, 2003-2007 and Gulfwide OCS Program, 2003-2042*, OCS Report MMS 2002-069, Department of Interior, Minerals Management Service, Environmental Division, page 11

That said, anyone who claims that spills no longer occur because the industry is so sophisticated and the regulators so vigilant has not been looking at the newspapers or MMS, Coast Guard, or the National Response Center reporting web site. There are plenty of reports of spills in the Gulf to choose from, including spills that occurred as a result of Hurricane Katrina in the Gulf, not just oil washed out into the Gulf from the shore.

OIL-SPILL RISK ANALYSIS FOR LEASE SALE 181

Extensive data on the probability of spills and the likelihood of a spill reaching important environmental resources comes from the *Oil-Spill Risk Analysis: Gulf of Mexico Outer Continental Shelf (OCS) in Support of the Environmental Impact Statement (EIS) for Proposed Lease Sale 181*, Department of Interior, Minerals Management Service, Environmental Division, OCS Report MMS 2001-007. This report modeled where a hypothetical oil spill would go over a 3, 10, or 30 day period if it were released from any one of more than 600 different launch points within lease sale 181. Using real wind and current data from a 9 year period, the model calculated where the oil would go and whether it would touch either a coastal segment of land in LA, MS, AL, or FL or contaminate a number of highly important environmental resources like Big Bend Seagrass area of the coast of Florida or the Florida Gulf Island National Seashore.

We believe that the report actually underestimates the probability of spills and coastal pollution since it used a high estimate of 240 million barrels of oil from the entire Lease Sale 181, and we are now told that the smaller Domenici-Bingaman area will probably produce almost 4 times more oil, 930 million barrels. Since the number and probability of spills is directly proportional to the amount of oil pro-

duced, the estimates of damage coming from the report are therefore unrealistically low.

Nonetheless, the report concludes, "Spills from all the launch areas have an average probability of contacting the shoreline in the study area of 31 to 59 percent within 30 days of occurrence. With increased travel time, the complex patterns of wind and ocean currents produce eddy-like motions of the oil spills and multiple opportunities for a spill to make contact with any given environmental resource or shoreline segment". pg. 8.

Data shown below come directly from the report cited. We show the 'maximum conditional probabilities' because the maximum is based on production of 240 million barrels rather than the lower value of 30 million barrels also used for projections in the report. Obviously, the conditional probabilities of a spill contacting land would be even higher if they had used the new projection of 930 million barrels of oil. The table shows only land segments or resources where the probability of being hit by oil is above 10%.

MAXIMUM PROBABILITIES (EXPRESSED AS A PERCENT CHANCE) THAT AN OIL SPILL WILL CONTACT AN ENVIRONMENTAL RESOURCE OR LAND SEGMENT WITHIN 3, 10, OR 30 DAYS FOR TOTAL SALE AREA

Area or environmental resource	3 days	10 days	30 days
U.S. Shoreline	28	53	63
Alabama State Offshore Waters	26	29	29
Flower Garden Banks	3	11	13
Eastern LA State Waters	5	19	22
Mobile Bay	12	13	13
Florida Panhandle State Offshore Waters	18	25	27
Land Segment 24 (Alabama-Florida border) ..	18	21	21

Source: the *Oil-Spill Risk Analysis: Gulf of Mexico Outer Continental Shelf (OCS) in Support of the Environmental Impact Statement (EIS) for Proposed Lease Sale 181*, Department of Interior, Minerals Management Service, Environmental Division, OCS Report MMS 2001-007, Table 4A, pg. 24. NB: Only resources or segments with a 10% chance or higher of having oil spill contact are listed here.

Our conclusion based on this MMS report which we now believe substantially underestimates the likelihood of an oil spill reaching coastal resources is that there will be oil spills of significant size (above 1,000 barrels) and that some of those spills will strike the coasts.

Catastrophic Events

When hurricanes strike the Gulf Coast they can generate wind in excess of 125 mph. Last summer's hurricanes Ivan, Katrina, and Rita were a testament to the awesome power that these storms have to damage or destroy offshore and onshore oil and gas facilities. The Incident Summary from NOAA's Office of Response and Restoration estimates an actual release of 7 million gallons of oil into the Gulf from at least 44 sites on land. By comparison, the Exxon Valdez oil spill, the largest one in U.S. history, dumped about 11 million gallons of oil into the Prince William Sound of Alaska.

In 2005, the National Response Center which is supposed to receive reports from all Federal agencies about oil and hazardous material spills reported 1,896 incidents from pipelines and 1,395 incidents from platforms.

According to the Mobile Register in a September 21, 2005 story titled, "Offshore Rigs Not Built to Handle Strongest Storms" which based on information from Federal reports, there were at least 64 spills associated with Gulf platforms following Katrina. Katrina destroyed 46 platforms and significantly damaged another 16, according to the American Petroleum Institute.

Some drilling rigs and platforms sank and disappeared, others became unanchored and floated way only to crash into bridges or the shore. Apparently, according to the Mobile Register article, most drilling rigs and production platforms are not designed to withstand the force of Category 5 hurricanes like Katrina that generate 100+ plus waves and 140 mph winds. Despite assurances to Congress, apparently the standards for oil rigs and platforms only mandate a design that would resist hurricanes between a Category 2 and 3 in strength. No wonder so many assets were damaged, blown away, or entirely lost.

A few specifics from a Bradenton Herald article of December 21, 2005 entitled "Hurricanes Wreak Environmental Disaster, Raising Concerns of Oil's Future". It reported that a Transocean drilling rig drifted for 80 miles before it was captured;

another rig beached on Dauphin Island. The Mars platform, which is twice as tall as the Empire State Building, weighs 70 million pounds, and gathers oil from 16 wells was crippled by Katrina. During hurricane Ivan in 2004, a Taylor Energy platform sank and spilled 17,000 gallons of oil 19 miles off the LA coast.

Since November there have been at least three ship collisions between floating or submerged oil rig/platform debris in the Gulf. On November 11, 2005, one sunken platform ripped a 35 foot long hole in the hull of a double hulled tanker in the Gulf in November which released an estimated 1-3 million gallons of heavy fuel oil. This is one of the largest spills ever in the Gulf.

While seabed safety valves typically stop undersea wells from leaking if the platform above is damaged, this can't be easily done for pipelines. When large storms hit, the underwater pipelines can be torn apart or damaged so that they leak. Many of the huge oil slicks on the Gulf after the recent hurricanes may come from pipeline leaks.

Attached to the back of this testimony are pictures taken from radar satellites of the Gulf of Mexico shortly after Katrina hit on September 2 and following days. The material was collected and interpreted by and organization called SkyTruth. The pictures can be found at www.skytruth.com. What they show is extensive oil slicks which appear to emanate from oil platforms, pipelines and shore facilities. The oil slicks covered over 500 square miles or over 300,000 acres of the Gulf on September 2nd which was three or four days after the hurricane struck.*

WHAT'S AT STAKE ON THE FLORIDA COAST

What's at stake on the Florida Coast if oil from spills or storm related accidents hit the shore is clear. The western coast of Florida has an immense tourist economy based, in large part, on having clean beaches and a clean Gulf of Mexico to boat and fish in. The whole state had an estimated \$550 billion gross state product in 2003 that is heavily dependent on tourism. In fact, approximately 60 million tourists visit Florida each year. Because visitors pay so much in sales and use taxes, the state has been able to avoid an income tax. Coastal property values, coastal tourism, and the multiplier effects of those expenditures are a huge part of Florida's economy.

According to the American Sportfishing Association, sportfishing generated \$7.5 billion dollars of activity in Florida in 2001, much of which occurred in saltwater. Commercial fishery landings in 2001 were worth almost \$120 million.

The eastern Gulf coastal waters are also home to a number of important environmentally sensitive areas like the Big Bend Seagrass Area and Tortugas Ecological Reserve. These reserves and coastal shoreline host a number of environmentally sensitive species such as:

- Sea Turtles
- Whooping Cranes
- Bald Eagles
- Brown Pelicans
- Manatees

Important beach areas include the: Florida Panhandle, the Big Bend area, Southwest Florida, and Ten Thousand Islands. All these could be effected by a large oil spill in the eastern Gulf with the beaches of the Florida Panhandle most at risk.

ALTERNATIVES TO DRILLING IN LEASE SALE 181

If this country were to adopt quite straightforward energy conservation policies and techniques like improving the fuel economy of cars and trucks, providing incentives for better energy saving appliances and lighting, etc.; and if the country was exploiting even modest amounts of clean, alternative energy like wind and solar power, then drilling in environmentally sensitive places like the eastern Gulf of Mexico for the last drops of oil wouldn't be necessary. But we waste so much energy today. We believe the government and Congress should invest their effort and our dollars in energy conservation programs and clean energy rather than in drilling debates.

There is some good news on this because some states have been quite busy on the renewable portfolio issue. By 2017, the renewable portfolio standards already enacted by the states will produce as much renewable power as would be produced by gas fired powerplants using 0.6 TCF of gas per year. That's twice as much gas annually than the amount that the Domenici-Bingaman bill would produce from

*The pictures have been retained in committee files.

181. It's indicative of what states and the federal government could do on conservation and renewable energy to replace production of gas and oil from places like 181.

CONCLUSION

U.S. PIRG and Florida PIRG both strongly oppose this energy bill. We feel that the natural gas to be found there will make, at best, a very marginal difference in the supply or price of gas in the future. The natural gas would not be available any time soon to address more immediate concerns about home heating costs, the price of nitrogen fertilizer, or feedstocks for chemical plants. No one can lease, explore, drill, and produce product quickly enough to address these real concerns in the short term. We suggest that a better way to address these concerns more quickly than by drilling in 181, would for this committee to look at a much larger emphasis on energy conservation and use of renewable energy supplies.

We do not believe that Florida's beaches, coastal environment and marine resources should be sacrificed to lower the price of natural gas by pennies five to ten years from now.

The CHAIRMAN. Thank you. I know that we're going to get a chance to inquire, so I just want to make an observation. By my failure to ask and silence, I don't want the record to think that I agree to the series of questions and answers that you made, because I don't agree with your hypothesis. If it was as you say, the answers might be your way. But if it is not as you say, the answers might be another way. So, these percentages you talk about, I'm not sure that I agree with. So, I just want to make sure that—and I think I could put people up here saying there are different ones, but I thank you for your testimony.

Mr. GRAVITZ. Thank you, sir.

The CHAIRMAN. Mr. Parker.

STATEMENT OF TIMOTHY PARKER, SENIOR VICE PRESIDENT, DOMINION EXPLORATION & PRODUCTION, INC., HOUSTON, TX

Mr. PARKER. Thank you, Mr. Chairman. It's my honor to be here today. My name is Tim Parker. I'm senior vice president of exploration and production for Dominion E&P. Dominion is one of the largest independents in the United States and is aggressively engaged in the search for new natural gas and oil supplies for our Nation.

Today, I am speaking on behalf of Dominion, but also for the Domestic Petroleum Council, the Independent Petroleum Association of America, the American Petroleum Institute, the National Ocean Industries Association, the Natural Gas Supply Association, the U.S. Oil and Gas Association, the National Petrochemical & Refiners Association and the International Association of Drilling Contractors.

There are three key points to my testimony today. First, additional leasing in the area as directed by S. 2253 is a crucial part of an overall program that we believe must be carried out to increase natural gas supplies for our Nation. Even the prospect of such supplies can have a positive and calming effect on the natural gas market. In my opinion, there is no single better place to grow production in the short- and mid-term timeframe than the eastern gulf. And because of our recent experience in the area, we have a good deal of confidence in the resource estimates. Conservative estimates of how much natural gas may be found in the area are in the range of 5 TCF. And if my past experience is a guide, actual production could end up being much more than that.

Second, the area included for leasing can be developed with high technology such as that already being applied in the adjacent leased area of the original Sale 181, bringing timely supplies to consumers. Today's offshore technology allows us to produce more energy with fewer facilities and less impact, even visual impact, than ever before. The graphic on the stand to the left—your right, excuse me, shows the Independence Hub project, which Ms. Burton previously mentioned, and which Dominion and its partners are in the process of developing. We will bring that project online in 2007. The graphic shows that overlaying on the area of Washington, DC. This facility will be capable of producing one billion cubic feet of gas per day, enough to serve almost three and a half million homes.

And as you can see, the wells connected to the floating platform by subsea flow and control lines would reach as far north as Columbia, Maryland, and as far south as Mechanicsville, Maryland. The Independence Hub sets many new records for offshore production, including the world's deepest floating production system, the world's deepest pipeline and the world's largest integrated subsea system, shown on the graphic to your left. Initially, production from 15 wells will flow to the platform from nine different fields. Total cost of this project, including wells drilled in the subsea connection system, will exceed \$2 billion. I should point out, however, that I consider the proposed 181 Area to be a relatively low-risk resource. To date, the success rate in the adjacent area, using the exact same 3-D technology that we've used in the original 181 Area, has yielded a wildcat success rate of about 50 percent, which is far better than the traditional one in eight kind of success rates that have been achieved historically.

Third point, the offshore technology applied by U.S. companies today worldwide has demonstrated a record of environmental compatibility that was displayed most vividly by there not having been a single significant offshore exploration and production facility oil spill caused by the otherwise devastating hurricanes Katrina and Rita. This was despite the fact that the storms moved through a core area of offshore operations, delivering sustained winds of more than 170 miles per hour and towering waves. The latest technology and sound management practices have made the U.S. offshore industry the envy of the world. Our environmental record truly is superb. Within that framework, let me note two facts.

First, we expect this to be a gas-prone area. A non-associated natural gas production, such as we would expect in the area, would have no potential for crude oil-related incidents. Second, there has not been a single incident involving a significant oil spill from a U.S. exploration and production platform in more than 25 years, since 1980, in fact.

In conclusion, opening up the remainder of the 181 Area, while critically important, is only one part of the long-term natural gas supply solution.

Other necessary actions, some of which are underway and others of which need more prompt attention, include finishing the restoration of production shut down by last year's hurricanes in the Gulf of Mexico, improving processes and adequately funding permitting for Federal onshore natural gas exploration and production, open-

ing other promising areas on the OCS, construction of the pipeline from Alaska, and constructing additional LNG infrastructure.

I commend the sponsors of S. 2253 and urge the committee to move it and other supply legislation swiftly through the legislative process. Delay in dealing with this problem has already cost consumers billions of dollars over the past several years, but the good news is that we think that this is a solvable problem. Today's hearing is a start, and I'll pledge our industry's and my company's support to the effort. Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Parker follows:]

PREPARED STATEMENT OF TIMOTHY PARKER, SENIOR VICE PRESIDENT, DOMINION EXPLORATION & PRODUCTION, INC., ON BEHALF OF DOMESTIC PETROLEUM COUNCIL, INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA, AMERICAN PETROLEUM INSTITUTE, NATIONAL OCEAN INDUSTRIES ASSOCIATION, NATURAL GAS SUPPLY ASSOCIATION, U.S. OIL AND GAS ASSOCIATION, NATIONAL PETROCHEMICAL & REFINERS ASSOCIATION, AND INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS

Mr. Chairman and members of the Committee, my name is Tim Parker and I am Senior Vice President of Dominion Exploration and Production, Inc.

Dominion is one of the largest U.S. independents that are among the most active in the search for, and development and production of, new natural gas and oil supplies for our nation.

Today I am speaking on behalf of Dominion, but also for the Domestic Petroleum Council, the Independent Petroleum Association of America, the American Petroleum Institute, the National Ocean Industries Association, the Natural Gas Supply Association, the U.S. Oil and Gas Association, the National Petrochemical & Refiners Association and the International Association of Drilling Contractors.

Dominion's experience includes an important project in the area adjacent to that contemplated to be leased by the provisions of S. 2253. In an area leased under the original 181 sale, Dominion and its partners will bring on-line in 2007 the Independence Hub project, a production platform in 8,000 feet of water capable of processing up to 1 billion cubic feet of gas per day—enough to serve almost three and a half million homes. So, as you see, we believe we have a unique ability to address today's subject. I will focus more on Independence Hub later in my testimony.

The key points of my testimony today are:

- Additional leasing in the original Sale 181 area as directed by S. 2253 is a crucial part of the overall program that we believe must be carried out to increase natural gas supplies for our nation. Even the prospect of such supplies can have a positive and calming effect on the natural gas market.
- The area included for leasing holds very significant additional natural gas resource potential that industry can develop with high technology such as that already being applied in the adjacent leased area of the original Sale 181—bringing timely supplies to consumers.
- The offshore technology applied by U.S. companies today worldwide has demonstrated record of environmental compatibility that was demonstrated most vividly by there not having been a single significant offshore exploration and production facility oil spill caused by the otherwise devastating hurricanes Katrina and Rita.

THE RESOURCE

Almost everyone agrees that the 181 area in the Gulf is the best single prospect we have in the U.S. for significant new near-term exploration and production. The Minerals Management Service estimated, at the time, that the original Sale 181 had the potential to produce 7.8 TCF of gas and 1.9 million barrels of oil.

However, when the size of the sale was reduced from approximately 5.9 million acres to 1.5 million acres, much of that resource was placed off limits. Conservative estimates of how much natural gas may be found in the area withdrawn are in the range of 5 TCF and, if past experience is a guide, actual production could end up being much more than that.

It must also be pointed out that the proposed 181 area is considered a relatively low-risk resource. To date, the success rate in the adjacent area, using the same 3D seismic technology as would be applied to the proposed area, is over 50%, far greater than traditional wildcat exploration.

A footnote with respect to the resource potential in the area contemplated for leasing in S. 2253: It may be much bigger than we can even imagine today.

As many of you know, in the parts of the Gulf of Mexico where we have been allowed to buy leases and explore, we have produced three times as much gas as we once thought was there. *And the current resource estimate, according to the MMS, is that there is nearly five times as much remaining to be found.* The more we explore, the more we know.

In addition, there are significant additional potential resources outside the area contemplated for leasing by S. 2253 that could be developed safely and that we ignore to our consumers' disadvantage. To the north, for example, in what is called the "stovepipe" area of the original Sale 181 area, there is natural gas potential that is close to existing transportation infrastructure—and still further from the Florida coast than other existing production. Surely there must be a way to reasonably consider how those resources might be added to our national energy portfolio

THE ROLE OF TECHNOLOGY

Today's offshore technology allows us to produce more energy with fewer facilities and less impact—even visual—than ever before. This graphic shows the Independence Hub project I mentioned earlier, overlain on a map of the Washington, DC area. As you can see, the wells connected to the floating platform by subsea flow and control lines would reach as far north as Columbia, MD and as far South as Mechanicsville, MD.

Independence Hub sets many new records for offshore production including the world's deepest floating production system, the world's deepest pipeline, and the world's largest integrated subsea system—shown here.

Initially, production from 15 wells will flow to the platform. This cutting edge technology doesn't come cheap, however. Total cost of this project, including wells drilled and the subsea connection system will exceed \$2 billion.

ENVIRONMENTAL PROTECTION

The outstanding environmental record of U.S. companies operating offshore around the world is well recognized as . . . *technologies are allowing the offshore industry to venture into deeper waters than ever before, while protecting marine life and subsea habitats* . . .¹—even in the most challenging areas such as the Arctic and North Sea and in otherwise catastrophic weather.

Off the part of our coast in which exploration and production is allowed, the safety of our operations was recently demonstrated in the most severe hurricane situations. Though many of the exploration and production facilities in the Gulf of Mexico were severely damaged or destroyed, the high-tech safety and environmental protection equipment and processes worked.

Here's a brief look at why we can be proud of our environmental record.

Careful scientific environmental study and operational planning always precede such activity. For example, our offshore geophysical companies, which conduct seismic work that allows us to "see" geologic structures beneath the seabed, have many procedures and practices designed to avoid harm to marine mammals, including:

- Monitoring for the presence of animals of concern
- Shutdown or no start-up when they are too close
- Slow, gradual ramp-up of operations just in case

According to the International Association of Geophysical Contractors, citing numerous government and private studies, no physical harm to whales or dolphins has ever been shown as a result of industry seismic operations.

During exploration, jack-up or semi-submersible rigs and drill ships have multiple systems and physical barriers to ensure that no spill occurs. Most important, along with multiple, redundant remote control systems, are "blowout preventers" which for deepwater wells are installed on the well at the seabed and are capable of immediate closure in the event of any emergency.

Once a field has been discovered and is in the development or production stage, completed wells flow through permanent "Christmas tree" systems—increasingly on the seabed for subsea developments as opposed to on a surface facility—of multiple valves to control oil and gas flow. These may be operated from tens or even a hundred miles away with multiple, redundant communications systems.

¹Clinton Administration DOE report: *Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology*, 1999.

Finally, a “downhole safety valve” is installed in the well itself below the seabed to provide an added protection barrier in the event of some catastrophic event’s damaging the Christmas tree.

To summarize, the latest technology and sound management practices have made the U.S. offshore industry the envy of the world. Its environmental record is superb:

- Non-associated natural gas production such as we would expect in the Sale 181 lease area has no potential for crude oil-related incidents.
- There has not been an incident involving a significant oil spill from a U.S. exploration and production platform in 25 years (since 1980).

The last such U.S. incident in which oil reached shore occurred in 1969 (in Santa Barbara Channel)—and we can find no documented evidence of oil from an exploration and production facility incident in U.S. waters having reached shore from more than about 12 miles away.

- Today’s modern technology includes such environmental protections as automatic subsea well shut-in devices, including sub-seabed safety valves.
- Facility and stand-by cooperative spill containment and cleanup technology provide multiple environmental protection layers.

As mentioned earlier, the industry’s performance during last summer’s hurricanes, which moved through a core area of offshore operations, is instructive. Despite sustained winds reaching 170 miles per hour and towering waves and the resulting destruction of numerous platforms and rigs, there was no significant spill from production wells.

Because today’s weather forecasting capabilities provide ample lead-time as storms approach, operators are able to follow routine shutdown and evacuation procedures. In the case of the Katrina and Rita hurricanes, 100% of oil production was shut-in ahead of time and 94% and 85% of natural gas production was shut-in as the respective storms hit.

CONCLUSION

Opening up the remainder of the 181 area, while critically important, is but one part of the long-term natural gas supply solution.

Other necessary actions—some of which are underway and others of which need more prompt attention—include finishing the restoration of production shut down by last year’s hurricanes in the Gulf of Mexico, improving processes and adequately funding permitting for federal onshore natural gas exploration and production, opening other promising areas on the OCS, construction of the pipeline from Alaska, and constructing additional LNG infrastructure.

I commend the sponsors of the bill and urge the Committee to move it and other supply legislation as swiftly through the legislative process as possible. Delay in dealing with this problem has cost consumers billions of dollars in recent years. Had the original 181 Sale gone through as planned, we would likely today have two or three more Independence Hub type projects preparing to deliver much needed energy to American consumers.

Thank you.

The CHAIRMAN. Thank you. I wish we had time. We may at another time. I don’t mean—not necessarily imposing on you, but it is kind of important that sometime more people understand how the technology has changed.

Mr. PARKER. Yes.

The CHAIRMAN. And when you look at the early stages of development off Louisiana, off Alabama, and it looks like we just went out there and just built some big rigs like we have over there in the Permian Basin and in Texas and New Mexico.

Mr. PARKER. Yes.

The CHAIRMAN. I don’t know how many. They have to have a hundred of them out there. You just see them all over the place.

Mr. PARKER. Right.

The CHAIRMAN. What you’re talking about here, if I read that drawing there—you are using that as an example?

Mr. PARKER. Yes, indeed.

The CHAIRMAN. So, the little red block is the footprint?

Mr. PARKER. That's correct.

The CHAIRMAN. So, when we're in ANWR, and we say a footprint of so many thousand—so many hundreds of acres, that's the footprint that would be put out there by the platform?

Mr. PARKER. Correct, over a distance of 55 miles from furthest north to furthest south. So, it's a huge area that we're draining with this one facility.

The CHAIRMAN. Okay, so that one footprint drains all—takes all those outliers that, indeed, are red areas, smaller, those—each of those are wells at the end of that?

Mr. PARKER. Correct.

The CHAIRMAN. And that is all—automatically come back to the delivery point?

Mr. PARKER. Correct.

The CHAIRMAN. And it goes out from there to pipelines?

Mr. PARKER. Correct.

The CHAIRMAN. Now, how many of these big ones, the most modern technology, how many do we have offshore? I don't imagine we have hundreds of them. It must just be scores of them, right?

Mr. PARKER. No, sir, it's—I don't have the exact number, but it's certainly less than 20.

The CHAIRMAN. All this production that we're talking about from these new footprints out there comes from that small number?

Mr. PARKER. Yes, sir.

The CHAIRMAN. What do you think might—maybe I shouldn't ask because you don't know, but if this were open, what's your guess if the risk was—came up on the high side and it came good, how many of these do you think would be out there? Let's strike the question. I think we should get some authentic answers.

Mr. PARKER. Okay.

The CHAIRMAN. We'll try to do that and get it in the record and ask a number of companies.

Mr. PARKER. Okay. If I can ever be of help, I'll be happy to come back.

The CHAIRMAN. All right. Now, we're going to go to you, Mr. Skains. Please tell us who you are and why you're here.

STATEMENT OF THOMAS SKAINS, CHAIRMAN, PRESIDENT AND CEO, PIEDMONT NATURAL GAS COMPANY, CHARLOTTE, NC, ON BEHALF OF THE AMERICAN GAS ASSOCIATION

Mr. SKAINS. Good morning, Mr. Chairman and members of the committee. My name is Tom Skains, and I'm chairman, president and CEO of Piedmont Natural Gas headquartered in Charlotte, North Carolina. Piedmont provides natural gas distribution service to nearly one million residential, commercial and industrial customers and municipalities in North Carolina, the upstate of South Carolina and the Nashville, Tennessee, metropolitan area.

I am here today on behalf of the American Gas Association. AGA represents 197 local energy utilities that deliver gas to over 56 million homes, businesses and factories throughout the country. I should note that local gas utilities are on a regulated rate of return for the gas delivery service we provide. By law, we do not profit from higher natural gas commodity prices. In fact, it hurts our business. We want what our customers want, adequate supplies at

affordable prices. I thank you for the opportunity to discuss the critical natural gas supply issue with you today. It is crucial that Congress act decisively and swiftly to increase the supply of natural gas in the United States.

Natural gas production has not kept pace with demand for 5 years now. And as a result, natural gas prices have risen dramatically, as I know you know. In fact, the average residential customers are paying roughly twice as much for gas today as they did in 1999. The EIA predicted last fall that prices this winter would be almost 50 percent higher than last winter. That forecast may have held true had winter temperatures to date not been 14 percent warmer than normal, including the warmest January on record. Even so, EIA is still forecasting a 24 percent increase in residential heating bills this winter. These high prices strain the budgets of all homeowners, and even worse, many low-income households must choose between heat and other life necessities.

There are State and Federal programs such as LIHEAP to assist the most needy, but LIHEAP is not adequately funded and only provides assistance to about 15 percent of those who are eligible, and it does not provide assistance to the average working family. The strain of high prices is no less painful to large business customers.

In the chemical industry, for example, we are told that more than 100,000 jobs have been lost since 2000. Plants are shutting down, and jobs are being lost permanently. We must make industrial production attractive once again in this country. The natural gas market was very stable in the 1980's and 1990's. Prices tended to fluctuate around \$2. Just within the past year, we saw \$6 gas prices in June jump to \$9 in August, largely as the result of hot weather that pushed more gas into electric generation. Prices spiked to \$14 as a result of the hurricane disruptions in the Gulf of Mexico in September. They fell to about \$11 in the early winter, but a cold snap in December shot them back up to \$15. Today, they're back in the \$7 range due to the warm weather in January.

My point from all of this is that natural gas prices today respond immediately and dramatically to marginal changes in supply and demand, including weather. There is no longer any slack in the system. The industry is running at full throttle, and therefore, a sudden change in supply and demand at the margin can mean a dramatic change in price. I urge you to act here and now to begin to rectify the supply and demand imbalance. Opening Lease Area 181 is an important step in the right direction.

In my view, there is absolutely no question that we must do this. Natural gas is produced in a safe, efficient and environmentally responsible fashion. We're talking about natural gas activity 100 miles or more offshore. It will not be seen, heard nor smelled, no tankers, no barges, no spills. I live in a coastal State, and I appreciate the need to protect our beaches, but I know in this instance, this is no threat. Let me also say that energy efficiency and conservation must continue to play a key role in easing the price pressure in natural gas markets.

We advocate and pursue these measures as a part of the solution. Natural gas customers throughout the country have been low-

ering their thermostats, tightening their homes, and installing more efficient gas appliances in response to higher energy costs.

In fact, the average residential natural gas household today uses roughly 25 percent less gas than in 1980, but energy efficiency alone is not the answer. Prices will only come down when we increase the supply of natural gas in the marketplace to meet the growing demand for our product. There are a number of steps that must be taken in order to bring the natural gas market back into balance. And I understand that Congress does not have full control over all of these, but I urge you, on behalf of the natural gas consumers across the Nation, to act aggressively on all issues that could increase our gas supplies. We must unlock more domestic sources of natural gas, both onshore and offshore. We must begin construction of a natural gas pipeline from Alaska. We can't afford to wait another 30 years. We must build new LNG-receiving terminals, and not just in the gulf coast. Hurricanes Katrina and Rita taught us important lessons about the need for geographical diversity for our Nation's natural gas supply.

Further, given our supply constraints, it's not wise or efficient to continue to rely on natural gas to provide 90 percent or more of our new electric generation capacity. The mix of fuels used to generate electricity must be diversified, including increased use of solar and wind technologies, the use of clean coal and coal-gasification technologies and the use of nuclear power. The Lease 181 matter before you today is not a total solution. There is no single solution, but it is a meaningful start. I urge you not to be swayed by people who tell you that this is not enough gas to make a difference. That is not true. Five trillion cubic feet of natural gas could meet the needs of roughly five million households for 15 years. I would prefer that you act today comprehensively on all of the solutions available to this Nation to solve our energy problems. But if you cannot, I urge you to act decisively on the Lease 181 issue before you. Thank you, and I'll be happy to respond to any questions you may have.

[The prepared statement of Mr. Skains follows:]

PREPARED STATEMENT OF THOMAS SKAINS, CHAIRMAN, PRESIDENT AND CEO, PIEDMONT NATURAL GAS COMPANY, CHARLOTTE, NC, ON BEHALF OF THE AMERICAN GAS ASSOCIATION

EXECUTIVE SUMMARY

- AGA supports opening Lease Area 181. AGA also supports unlocking other domestic sources of natural gas, both onshore and offshore. Developing the Lease 181 Area is the next excellent opportunity to increase natural gas production from a producing area where infrastructure exists to move the gas to market. Trillions of cubic feet of natural gas are likely to be developed from the area. Pipeline infrastructure that moves gas to market is nearby and can be expanded to serve the gas gathering needs of successful producers. Individual well productivity is expected to be high and thus the impact of developing this gas resource to consumers would be immediate.
- Natural gas utilities, as is the case with our customers, do not benefit from higher natural gas prices. We make our money on the delivery, not the production, of natural gas, which is regulated by each state we serve. We support legislation and regulations to increase the supply of natural gas in order to moderate its price to consumers.
- The average residential gas customer is paying roughly twice as much for natural gas today as he or she did in 1999. For larger customers, the strain of higher gas prices has resulted in job losses and plant closures.
- Natural gas markets have been extremely tight for the past five years, with supply unable to keep pace with rising demand and prices reflecting the market

situation. New supply initiatives are crucial to correcting this imbalance, as are demand side actions. Put in other terms, it is not good public policy to let weather dictate who heats their home, which plant operates or shuts down or who keeps or loses their job.

- Natural gas demand is projected to increase by 37 percent over the next 15 years.
- Domestic natural gas production accounts for over 80 percent of the natural gas supplied to consumers in the United States. Sustaining or growing gas production is a crucial part of meeting consumer home heating, commercial or other needs at reasonable costs. Opening Lease Area 181 is a step in the right direction.
- New sources of gas supply must also be made available to natural gas consumers. Supplies of liquefied natural gas and pipeline gas from Alaska must be aggressively pursued.
- Even with natural gas imports from our North American neighbor, Canada, and even with increases in liquefied natural gas imports from other parts of the world, domestic production remains the preeminent source of natural gas to consumers and cannot be ignored.
- Public policy makers must consider both energy and environmental goals when developing regulations that impact natural gas resource development. That is, environmental goals must be achieved in concert with the pursuit of a greater diversity in natural gas supply sources.
- Given that natural gas supplies are constrained, it is not wise to continue to rely on natural gas to provide 90 percent or more of our new electricity generation capacity. AGA supports efforts to diversify the electricity generation fuel mix.

INTRODUCTION

Thank you for the opportunity to testify before the subcommittee. My name is Tom Skains and I am the chairman, president and CEO of Piedmont Natural Gas located in Charlotte, North Carolina. Piedmont provides natural gas service to nearly 1 million households, commercial and industrial customers and municipalities in North Carolina, South Carolina and Tennessee.

I am testifying today on behalf of the American Gas Association, which represents 197 local energy utility companies that deliver natural gas to more than 56 million homes, businesses and industries throughout the United States. Natural gas meets one-fourth of the United States' energy needs and it is the fastest growing major energy source. As a result, adequate supplies of competitively priced natural gas are of critical importance to AGA and its member companies. Similarly, ample supplies of reasonably priced natural gas are of critical importance to the millions of consumers that AGA members serve. AGA speaks for those consumers as well as its member companies.

The natural gas industry is at a critical crossroads. Natural gas prices were relatively low and very stable for most of the 1980s and 1990s. Wholesale natural gas prices during this period tended to fluctuate around \$2 per million Btus (MMBtu). Today, however, natural gas markets are supply constrained and even small changes in weather, economic activity or world energy trends result in significant wholesale natural gas price fluctuations. Today our industry no longer enjoys prodigious supply; rather, it walks a supply tightrope, bringing with it unpleasant and undesirable economic and political consequences—most importantly high prices and higher price volatility. Both consequences strain natural gas customers—residential, commercial, industrial and electricity generators.

As this committee well knows, energy is the lifeblood of our economy. Millions of Americans rely upon natural gas to heat their homes, and high prices are a serious drain on their pocketbooks. High, volatile natural gas prices also put America at a competitive disadvantage, cause plant closings, and idle workers. Directly or indirectly, natural gas is critical to every American.

The consensus of forecasters is that natural gas demand will increase steadily over the next two decades. This demand growth will be driven by the electricity generation market, as natural gas has been the fuel of choice for over 90 percent of the new generation units constructed over roughly the past decade. In part, the dominance of natural gas in this market is attributable to environmental regulations that promote the clean-burning characteristics of natural gas. The overall growth in gas usage will occur because natural gas is the most environmentally friendly fossil fuel and is an economic, reliable, and homegrown source of energy. It is in the national interest that natural gas be available to serve the demands of the market. The federal government must address these issues and take prompt and

appropriate steps to ensure that the nation has adequate supplies of natural gas at reasonable prices.

NEW NATURAL GAS RESOURCES FROM LEASE AREA 181

Drilling for natural gas is expensive and time consuming. The process of discovery, reserves development and flowing gas to consumers can take years to complete, particularly in rank wildcat areas. However, when new gas resources are located near existing production, often the lead times for new supplies can be reduced. Such would be the case with new gas discoveries in Lease Area 181.

Developing the Lease 181 Area is the next excellent opportunity to increase natural gas production from a producing area where adjacent infrastructure exists to move the gas to market. The volume of potential gas supplies estimated is significant. Trillions of cubic feet of natural gas may be available for development from the area. Pipeline infrastructure that moves gas to market is adjacent and is currently serving other central Gulf of Mexico production and can be expanded to serve the gas gathering needs of successful producers in Lease Area 181. Individual well productivity is expected to be high and thus the impact of developing this gas resource to consumers would be immediate.

Despite the hardships imposed by high natural gas prices, there was a buy-back of federal leases where discoveries had already been made in the Destin Dome area (offshore Florida) of the eastern Gulf of Mexico. We do not understand or agree with that decision. To deny leasing in the 181 Area, which is further from the coast than the Destin Dome (100 miles minimum), would be even more difficult to justify to natural gas consumers. With that said, the following information addresses in more detail current conditions in U.S. natural gas markets.

NATURAL GAS MARKET CONDITIONS

Stability in the natural gas marketplace is crucial to all of America for a number of reasons. It is imperative that the natural gas industry and the government work together to take significant action in the very near term to ensure the continued economic growth, environmental protection, and national security of our nation. The tumultuous events in energy markets over the last several years serve to underscore the importance of adequate and reliable supplies of reasonably priced natural gas to consumers, to the economy, and to national security.

There has been a crescendo of public policy discussion with regard to natural gas markets since the "Perfect Storm" winter of 2000-2001, when tight supplies of natural gas collided with record cold weather to yield record natural gas home-heating bills. The vulnerability of the natural gas market to weather was demonstrated again in the summer of 2005 when weather that was 18 percent warmer than normal pushed more gas into electricity generators to meet air conditioning demand, and yet again in September when multiple hurricanes in the Gulf of Mexico eliminated nearly 25 percent of our total gas supply for a brief period, with lingering impacts even today. The hot summer pushed natural gas prices upward from the \$6.00 per MMBtu level to nearly \$10.00, the hurricanes resulted in prices that fluctuated between \$12.00 and \$14.00 per MMBtu, and a brief cold snap in December produced a price spike to roughly \$15.00 per MMBtu. Only a substantially warmer than normal 2005-2006 winter heating season has dampened the impact of these price increases to consumers. Clearly, natural gas markets are higher and more volatile than at any point in history. Moreover, there is no sign that this market volatility will abate in the near future.

It is harmful to individual families and to the entire U.S. economy for natural gas prices to remain both high and volatile. Unless we make the proper public policy choices—and quickly—we will face many more difficult years with regard to natural gas prices. Of course, when families pay hundreds of dollars more to heat their homes, they have hundreds of dollars less to spend on other things. Many families are forced to make difficult decisions between paying the gas bill, paying for medicines or paying the rent. There are, of course, state and federal programs such as LIHEAP to assist the most needy. But LIHEAP only provides assistance to about 15 percent of those who are eligible, and it does not provide assistance to the average working family. These price increases have affected all families—those on fixed incomes, the working poor, lower-income groups, those living day to day, and those living comfortably. We support the full funding of LIHEAP at the \$5.1 billion level that is authorized in the Energy Policy Act. In addition, the Energy Policy Act contains a provision to establish a new and innovative program that would allow the Department of Interior to provide royalty gas at a discount to low-income consumers. While the Department of Interior has expressed interest in establishing

such a program, it has determined the EPACT language does not grant clear authority to proceed. We urge the committee to clarify this language.

The impact of unstable natural gas markets on U.S. businesses is equally disturbing. Since natural gas prices began rising in 2000, an estimated 78,000 jobs have been lost in the U.S. chemical industry, which is the nation's largest industrial consumer of natural gas, both for the generation of electricity at manufacturing plants and as a raw material for making medicine, plastics, fertilizer and other products used each day. Similarly, fertilizer plants, where natural gas can represent 80 percent of the cost structure, have closed one facility after another. Glass manufacturers, which also use large amounts of natural gas, have reported earnings falling by 50 percent as a result of natural gas prices. In our industrial and commercial sector, competitiveness in world markets and jobs at home are on the line.

NATURAL GAS DEMAND GROWTH

In a study prepared for the American Gas Foundation in February of 2005, natural gas demand is projected to increase by 37 percent between 2003 and 2020 under a "most likely" energy scenario. Although higher natural gas prices may moderate some of this projected demand growth, including the growth in demand for gas-fired electricity generation, we believe the fundamentals of this document remain sound and the basic tenets are unchanged.

NATURAL GAS SUPPLY

For the past five years, natural gas production has operated full-tilt to meet consumer demand. The "surplus deliverability" or "gas bubble" of the late 1980s and 1990s is simply gone, as illustrated in the graphic below* that compare actual natural gas production with production capability (prepared by Energy and Environmental Analysis).

Production facilities are operating at full capacity. No longer can new demand be met by simply opening the valve a few turns. The valves have been, and presently are, wide open.

America has a large and diverse natural gas resource; producing it, however, can be a challenge. Providing the natural gas that the economy requires will necessitate: (1) providing, in some cases, incentives to bring the plentiful reserves of North American natural gas to production and, hence, to market; (2) making available for exploration and production the lands particularly federal lands—where natural gas is already known to exist so gas can be produced on an economic and timely basis; (3) ensuring that the new infrastructure that will be needed to serve the market is in place in a timely and economic fashion.

If we are to continue to meet the energy demands of America and its citizens, and if we are to meet the demands that will they make upon us in the next two decades, we must change course. It will not be enough to make a slight adjustment or to wait three or four more years to make necessary policy changes. Rather, we must change course entirely, and we must do it in the very near future. Lead times are long in our business, and meeting demand years down the road requires that we begin work today.

We have several reasonable and practical options. It is clear that continuing to do what we have been doing is simply not enough. In the longer term we have a number of options:

First, and most importantly, we must work to sustain and increase natural gas production by looking to new frontiers within the United States. Further growth in production from this resource base is jeopardized by limitations currently placed on access to it. For example, most of the gas resource base off the East and West Coasts of the U.S. and the Eastern Gulf of Mexico is currently closed to any exploration and production activity. Moreover, access to large portions of the Rocky Mountains is severely restricted. The potential for increased production of natural gas is severely constrained as long as these restrictions remain in place.

The graphic below shows how important sustaining domestic natural gas production is to supplying consumers with the natural gas they require. Even with natural gas imports from our North American neighbor, Canada, and even with increases in liquefied natural gas imports from other parts of the world, domestic production remains the preeminent source of natural gas to consumers and can not be ignored.

To be direct, America is not running out of natural gas and it is not running out of places to look for natural gas. America is running out of places where we are *allowed* to look for gas. The truth that must be confronted now is that, as a matter of policy, this country has chosen *not* to develop much of its natural gas resource

*All graphics have been retained in committee files.

base. We doubt that that many of the millions of American households that depend on natural gas for heat are aware that this choice has been made on their behalf.

It is imperative that energy needs be balanced with environmental impacts and that this evaluation be complete and up-to-date. There is no doubt that growing usage of natural gas harmonizes both objectives. Finding and producing natural gas is accomplished today through sophisticated technologies and methodologies that are cleaner, more efficient, and much more environmentally sound.

Second, we need to increase our focus on non-traditional sources, such as liquefied natural gas (LNG). Reliance upon LNG has been modest to date, but it is clear that increases will be necessary to meet growing market demand. Today, roughly 97 percent of U.S. gas supply comes from traditional land-based and offshore supply areas in North America. Despite this fact, during the next two decades, non-traditional supply sources such as LNG will likely account for a significantly larger share of the supply mix. LNG has become increasingly economic. It is a commonly used worldwide technology that allows natural gas produced in one part of the world to be liquefied through a chilling process, transported via tanker, and then re-gasified and injected into the pipeline system of the receiving country. Although LNG currently supplies less than 3 percent of the gas consumed in the U.S., it represents 100 percent of the gas consumed in Japan.

LNG has proven to be safe, economical and consistent with environmental quality. Due to constraints on other forms of gas supply and increasingly favorable LNG economics, LNG is likely to be a more significant contributor to U.S. gas markets in the future. It will certainly not be as large a contributor as imported oil (nearly 60 percent of U.S. oil consumption), but it could account for 15-20 percent of domestic gas consumption 15-20 years from now if pursued aggressively and if impediments are reduced.

It is unlikely that LNG can solve the entirety of our problem. A score of new LNG import terminals have been proposed, some with capacities in excess of 2.5 billion cubic feet per day. However, given the intense "not on our beach" opposition to siting new LNG terminals, a major supply impact from LNG may be a tall order indeed.

Third, we must tap the huge potential of Alaska. Alaska is estimated to contain more than 250 trillion cubic feet of natural gas—enough by itself to satisfy U.S. gas demand for more than a decade. Authorizations were granted 25 years ago to move gas from the North Slope to the Lower-48, yet no gas is flowing today nor is any transportation system under construction. Indeed, every day the North Slope produces approximately 8 billion cubic feet of natural gas that is re-injected because it has no way to market. Alaskan gas has the potential to be the single largest source of price and price volatility relief for U.S. gas consumers. Deliveries from the North Slope would not only put downward pressure on gas prices, but they would also spur the development of other gas sources in the state as well as in northern Canada.

Fourth, we can look to our neighbors to the north. Canadian gas supply has grown dramatically over the last decade in terms of the portion of the U.S. market that it has captured. At present, Canada supplies approximately 14 percent of the United States' needs. We should continue to rely upon Canadian gas, but it may not be realistic to expect the U.S. market share for Canadian gas to continue to grow as it has in the past or to rely upon Canadian new frontier gas to meet the bulk of the increased demand that lies ahead for the United States.

The pipelines under consideration today from the Prudhoe Bay area of Alaska and the Mackenzie Delta area of Canada are at least 5-10 years from reality. They are certainly facilities that will be necessary to broaden our national gas supply portfolio. We must recognize, however, that together they might eventually deliver up to 8 billion cubic feet per day to the lower 48 States. That is less than 10 percent of the natural gas envisioned for the 2025 market.

There is much talk today of the need for LNG, Alaskan gas, and Canadian gas. There is no question that we need to pursue those supplies to meet both our current and future needs. Nonetheless, it is equally clear that, in order to meet the needs of the continental United States, we will need to continue to look to the lower-48 states.

Thank you for this opportunity to present our views.

The CHAIRMAN. Thank you very much. Thank you very much, Mr. Skains. Now, I want to make one clarification, then I'm going to turn the meeting over to Senator Burr, and he and Senator Landrieu can keep the meeting open until—how about making it 12:30 p.m., 20 minutes; is that fair enough? Then, would you close

the meeting at that point? Or if you finish sooner, close it then. Mr. Parker, as senior vice president of Dominion, you were here also, as I gather, on behalf of the Domestic Petroleum Council?

Mr. PARKER. Correct.

The CHAIRMAN. Independent Petroleum Association?

Mr. PARKER. Correct.

The CHAIRMAN. National Ocean Industries Association?

Mr. PARKER. Yes, sir.

The CHAIRMAN. Natural Gas and U.S. Oil and Gas Association?

Mr. PARKER. Yes, sir.

The CHAIRMAN. And National Petrochemical Refiners?

Mr. PARKER. Yes, sir.

The CHAIRMAN. And International Association of Drilling Contractors?

Mr. PARKER. Yes.

The CHAIRMAN. Now, you made a statement on their behalf, not just your own.

Mr. PARKER. Correct.

The CHAIRMAN. It was your opinion, based upon your knowledge of the market, that the opening of this 181, while we'd like to do a lot more, but opening it as described in Domenici—Bingaman would have an impact on the market, that it could stabilize the market and/or have a positive effect in other ways? I'm paraphrasing, but would you tell us that, and would you say, for the record, is that what all these entities believe?

Mr. PARKER. They do, indeed, believe that. And to state it, we believe that to have the prospect of a relatively high-rate set of accumulations that we could bring to the market in the near term, just that by itself will help to mitigate natural gas prices.

The CHAIRMAN. Is this a substantial accumulation? You just used those words?

Mr. PARKER. We think that there's an excellent chance that there is. As Ms. Burton said earlier, you never know until you drill.

The CHAIRMAN. Right.

Mr. PARKER. But we think there's an excellent opportunity here. We really do.

The CHAIRMAN. Okay, then let's make it even more specific. If, in fact, the prospects that have been indicated, five trillion cubic feet are going to be made available, if that is the fact, would that be a substantial accommodation, as described by you, a substantial accumulation that's ready, that could have an effect?

Mr. PARKER. I believe so, yes.

The CHAIRMAN. Okay, I want to state that for the record because I tell you, it's a pretty big amount. People don't think so, but, you know, that's ten million United States houses for 5 or 6 years.

Mr. PARKER. Yes, sir.

The CHAIRMAN. And it's the only way I can do it so people would see. I would think if the industry says that's going to be there, that's pretty good—pretty healthy. I want to close by saying as chairman of this committee, I'm fully aware that this is just a beginning. The whole offshore has to be looked at. Some States are looking at it with more willingness to say maybe we should get in, or maybe we should indicate our interest. Some are still saying, no, no, never. But Senator Bingaman and I thought early this year,

since it's not going to be a very easy year, you know, we're not going to get through this year with five pieces of energy legislation, that we ought to take this leasehold and get it if we could. So, everybody should understand that's what we're about. We'll make some people, besides Florida, unhappy because they want to do more. And I'm willing to talk to them about how we can do that. I know we have to look at offshore impacts, but the problem is that immediately sets up all kinds of who's for what, who's against what, but almost everybody in that team is for this. So, what we're going to try to do is put that kind of thing together where we get this and move ahead. And everybody should also know we're not opposed to what the administration's doing. In fact, I want to say today I compliment them. I guess I would say I wish they would have started 2 years ago, but I don't run the show over there. I try to run this committee as best I can, but maybe we made it move a little bit, Senator. I don't know. What do you think?

Senator LANDRIEU. We're making progress, Mr. Chairman.

The CHAIRMAN. Okay. All right.

Senator LANDRIEU. Thank you.

The CHAIRMAN. Thanks, Senator Burr.

Senator BURR [presiding]. The chair would recognize Senator Landrieu.

Senator LANDRIEU. Thank you. And I thank you, Mr. Chairman, for getting us started on this important debate, for keeping us focused on this important debate, because you've been at it for a while. I do have a couple of questions for Mr. Skains—well, actually, I'm going to start with Dominion, Mr. Parker.

In your testimony, you eluded to the safety record of the industry in the gulf coast, and I'd like you to take a moment to just elaborate a bit on the outcome of Katrina and Rita, which were two extremely powerful storms, as you know, that hit both the southeastern part of our State and Mississippi as well, and then Rita, which hit the southwest, which hit us pretty directly and also Texas, and just by a short distance failed to hit Houston or Beaumont directly. These were, in our minds, two of the worst storms that have ever hit the country. What was the outcome in the Gulf of Mexico in terms of spills? Now, I know that some of the infrastructure was out, some of our ports were temporarily shut down, our facilities, but was there any major environmental damage that your company was aware of? And I'd like the others to comment, if you want to. But, Mr. Parker, let's start with you.

Mr. PARKER. No, from both, for our company and for the industry as a whole. From E&P production facilities, which I would differentiate from transportation and delivery facilities and so forth, there were no significant spills whatsoever. It's something that we're quite proud of, in fact. If you look at the nature and the magnitude of the storms, as you point out, they were huge storms. There were no significant spills. There was some damage, obviously. In fact, we're still not all the way back up to full production. But the environmental safeguards that we put in place worked, and they demonstrably worked under truly extraordinary conditions.

Senator LANDRIEU. So, that is for the exploration and production facilities—

Mr. PARKER. Yes, ma'am.

Senator LANDRIEU [continuing]. For your company and others? Does anybody else—Mr. Gravitz, do you want to add anything?

Mr. GRAVITZ. Certainly, Senator, it is true that the safest—the least likely place for oil spills to happen in this sort of industry is from platforms themselves, although there were some platforms—there's a picture at the back end of my testimony, which shows that there were some platforms that were leaking in the aftermath of Katrina. And I would urge you to go to a website, *www.skytruth.com*, which has radar images from space, which pretty clearly shows leakages from both platforms and pipelines in the aftermath of Katrina.

It was a huge storm, and everybody understands that. So, in fact, the weakest link, you know, in this whole industry are pipelines and barges and tankers. They are roughly five to ten more times likely to produce oil spills than from platforms themselves. It is true, and we applaud the efforts of the industry. They've gotten huge, tremendous improvements in terms of safety over the last 10 or 15 years.

However, if you do look at the record, and MMS has looked at the record of spills, et cetera, they've developed some pretty good statistical information about the likelihood. And for every billion barrels of oil you produce, you're going to have a spill of one kind or another, and that may be from a pipeline, it may be from a tanker, and to a much lesser degree, as I indicated, it will come from a platform.

So, there were, and there are, a bunch of newspaper reports that I can forward to this committee or your office which document some of the spills that occurred. During Katrina, there was a fairly significant spill. We can argue about what the term significant means, but I won't do that. There was a fairly significant spill due to Hurricane Ivan, which I believe was in the year 2004 or 2001, from one of the platforms. So, every time one of these storms hits, there are some—there is some damage to pipelines and platforms that results in the release of oil. Thank you.

Senator LANDRIEU. Because I would like to get that clear on the record. I think it's very important, as we move forward, to stop sort of dancing around this issue and just understand that they are risk-associated, and it's a matter of measuring those risks against the benefits of energy production. And for this country to be more responsible in that debate, instead of both sides digging in and claiming that there are either no spills, or there are too many spills, exactly what it is, exactly what the costs were so that we can move forward in a rational and reasonable way. But the bottom line is that from production, from exploration and production platforms, it was minimal.

What you're testifying to is the pipelines and the barges. There were some difficulties, which we will get clarified for the record, but having said that and agreeing to that, it would seem to me that another good use of the funds being generated, the taxes being paid, would be to mitigate against this, which we're basically not doing in a direct way now because the taxes being paid are going into the general fund for all sorts of purposes, not the least of which is related to what we have just discussed, which brings me to Mr. Skains. Has the American Gas Association taken a position

on revenue sharing for the coastal States? And if so, what is it? And if not, why not?

Mr. SKAINS. Thank you for the question, Senator. The American Gas Association is supportive of whatever legislation could effectively unlock and open up more natural gas supplies to this Nation to relieve the burden and the suffering that energy consumers are experiencing today with the high level of energy prices being paid. We're supportive of the Lease 181 issue before you today. We're also supportive, conceptually, of the SEACOR or the Ocean State Options Act proposals, which provide incentives for States to weigh in and support reasonable and environmentally responsible natural gas development and production. So, the short answer is we're supportive of all of the above, anything that could increase natural gas supply, the domestic supplies that are abundant in this Nation that are off limits today and get those gas supplies to market to relieve the price burden that our consumers are experiencing.

Senator LANDRIEU. One more: Do you agree that there have been some—although there have been many positive impacts of this industry, obviously—jobs and economic benefits to the region and the Nation, do you agree that there are some negative environmental impacts associated with pipeline construction and barges, et cetera, and that could be more evidence to undergird the need for revenue sharing?

Mr. SKAINS. Well, Senator, I agree with your statement before. This is all a question of balancing competing interests. With any infrastructure, there's some level of impact. The question is, what is that level of impact versus the benefits that would be derived? And you're right, that's what needs to be weighed. And in this case, we think that the net benefits are in favor of opening up this lease for development and production. But every infrastructure in any industry is going to create some level of impact. The question is measurement, and what are the costs and benefits.

Senator LANDRIEU. And I don't know, Mr. Wilson. Did you have anything you'd want to add? I know you're not directly in the oil and gas business, but you're in the downline.

Mr. WILSON. We're consumers of gas. I would just add, with respect to your question on royalties, that as a corporate citizen of Louisiana, I would be generally supportive of sharing that would help the State. But as an issue that we're dealing with, we are focused on the supply end. We haven't taken a position on royalties. That's not really our expertise, and I would defer to the other panelists in that regard.

Senator LANDRIEU. Okay. Mr. Parker?

Mr. PARKER. Well, we, in general, are entirely supportive. We think that it makes excellent sense that the States that are impacted would receive a share of the revenue. The only place where we would quibble at all is the current discussion where there is consideration that leasing plans might be delayed or deferred, and we would obviously be opposed to that. The system that has emerged under the MMS over the past 30 years has been demonstrated to be an excellent system in terms of getting product to market, and we would be reluctant to see anything defer that. Within that framework, however, we fully and entirely support a revenue-sharing provision.

Senator LANDRIEU. Now, it's important—and this is my last question—that that will continue fairly smoothly, or has in the past, but considering the great needs of the gulf coast and the dramatic footage of Katrina and Rita and the erosion that's taking place off of America's wetlands, that smooth process may find a few bumps if we don't, you know, pay a little bit more attention to this impact assistance. Thank you.

Senator BURR. I thank the Senator from Louisiana, one of the most knowledgeable individuals here on this issue, and my questions will be brief. I'll try to keep this in the area that the chairman has focused on, and that's the 181 Lease. Mr. Gravitz, I've got to ask you, is there any exploration on land or offshore of oil and gas that U.S. PIRG would ever be supportive of?

Mr. GRAVITZ. Senator, Florida PIRG, one of our members, is on record extensively as supporting the Martinez-Nelson bill for a variety of reasons that I think makes a great deal of sense. You should understand that we have other coastal States whose PIRG organization—

Senator BURR. But as a national organization?

Mr. GRAVITZ. U.S. PIRG does not have a position.

Senator BURR. And has U.S. PIRG ever supported oil or gas exploration on land or offshore?

Mr. GRAVITZ. Not to my knowledge, but I'll have to consult—

Senator BURR. If, as Senator Landrieu has suggested, there might be some royalty received to the States, or we took some small piece of the Federal royalty and devoted it to a coastal management fund to address issues like beach renourishment, dunes renourishment, intercoastal waterway maintenance, levee construction, things that are inherent to the coastlines that we represent, would U.S. PIRG be supportive of the creation of that trust with royalty money off of exploration?

Mr. GRAVITZ. Well, Senator, we answer to a board of directors, but I suspect that we would be, because it seems a simple matter of equity that States that bear the burden and the environmental damage that this industry sometimes imposes on coastal areas, that they be compensated and that we try to rebuild wetlands that are damaged and try to rebuild beaches that get swept away. So, yes, sure, I think that makes a lot of sense.

Senator BURR. I appreciate that answer, because I think it is important to understand that we can find the balance. In fact, it's beneficial that when we take something, we also bring with it some assurance of the protection and the stewardship of it, of another—for not just our generation, but for others.

Mr. Skains, thank you for coming from North Carolina. I heard your answer to Senator Landrieu. I began to wonder whether you might be running for office as diplomatically as you answered that. We like to hear people say anything we'd like to do up here.

Mr. SKAINS. I'm here to support you, Senator.

Senator BURR. Let me say I didn't appreciate the price increase that you took this year, the rate increase. And I commend you and Piedmont Natural Gas for when you saw natural gas prices stabilize and fall, you immediately went to the North Carolina Utility Commission, and you sought a rate reduction at a time where we're pointing a lot of fingers at individuals that gouge. I want it on the

record that I'm not sure that Piedmont Natural Gas could have responded any quicker in a very uncertain market, and for that reason, in my statement that I wrote a check to you this month, I noticed that it was also reflective of a rate reduction, so I commend you for that.

Let me ask you and Mr. Parker this, specifically. I think both of you have addressed conservation and the fact that though we all want to have policies and encourage conservation at the highest level in this country, that by itself, we don't get there. If we have good participation with conservation, if we get LNG terminals that are not just on the coast, but they're located throughout the country, and we have a free flow of liquefied natural gas, and you allow the economy to grow at that 3.3 percent pace that the President's—that OMB projects today, and hopefully that we can continue into the future, am I hearing you that that is not enough to meet the needs of the United States in the future? Without additional exploration is my point.

Mr. SKAINS. Yes, sir, thank you. Thank you for that question. In our view, conservation is just one piece, one small piece of the puzzle here. Our energy challenges in this Nation are multi-faceted. It's going to take a multi-faceted approach to solve them. It's going to involve increasing our domestic energy production. It's going to involve importing energy in the form of LNG. From abroad, it's going to involve bringing that available, already proven natural gas from Alaska down into the lower 48. It's going to involve conservation and efficiency approaches by consumers. And it's going to involve diversification by our electric utility businesses away from natural gas to support their growth into other sources of energy. It's going to take a multi-faceted approach. I don't think any one of these single solutions alone can meet our challenges. It's more complex, and it's going to take, again, a multi-faceted approach.

Senator BURR. Well, I think you stated very clearly for the committee that this is not—since you're regulated by a utility commission, the ebb and flow of this price is not beneficial to you as a company. You're 100 percent respondent to your customers. Without additional domestic exploration, specifically for natural gas, you can't provide your customers the security of knowing that there is, one, an ample supply, and two, a stable price. Is that an accurate statement?

Mr. SKAINS. That's an accurate statement, Senator.

Senator BURR. Mr. Parker, did you want to add something?

Mr. PARKER. Well, I think he's hit all of the important points. We face a real energy challenge in the United States, and it is going to take everything. It is going to take conservation. It is going to take LNG. It's going to take a pipeline from Alaska, ultimately, for us to meet our needs. But it's also going to take U.S. domestic exploration and production to meet our needs. And that's something that we feel very strongly about, that we will be challenged to meet the needs of the Nation even with complete access.

Senator BURR. Mr. Gravitz, I can't pass on the opportunity to have you here because I'm not sure when we might have you back.

Mr. GRAVITZ. I'd love to come back anytime you want me to.

Senator BURR. Are you supportive of the President's goal of becoming 75 percent less reliant on Middle East oil by 2025?

Mr. GRAVITZ. I'm not sure we've discussed that particular proposal amongst our energy staff, but we're supportive of any proposal that makes us less reliant on oil and natural gas and more reliant on saving energy and more reliant on clean alternative energy sources.

Senator BURR. One of the universal agreements, I think, as far as a step as to how we get there, is that a much larger piece of our generation portfolio for energy in this country must be nuclear. It certainly meets the clean. It meets the less reliant on Middle East. It meets the movement away from carbon-based products. Is U.S. PIRG supportive of that move toward additional nuclear generation in this country?

Mr. GRAVITZ. No, I believe U.S. PIRG historically has opposed relicensing existing nuclear power plants and the building of new nuclear power plants.

Senator BURR. Okay.

Mr. GRAVITZ. I believe that's a long-held position——

Senator BURR. I thought it was.

Mr. GRAVITZ [continuing]. For reasons that have to do with the entire nuclear fuel cycle and some of the hazards that get generated.

Senator BURR. I appreciate that answer. Once again, on behalf of the committee, let me thank all of our witnesses. This hearing's adjourned.

[Whereupon, at 12:30 p.m., the hearing was adjourned.]

APPENDIXES

APPENDIX I

Responses to Additional Questions

DEPARTMENT OF THE INTERIOR,
OFFICE OF CONGRESSIONAL AND LEGISLATIVE AFFAIRS,
Washington, DC, April 11, 2006.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN. Enclosed are responses prepared by the Minerals Management Service to questions submitted following the February 16, 2006, hearing regarding S. 2253, "Oil and Gas Leasing in Area 181 of the Gulf of Mexico).

Thank you for the opportunity to provide this material to the Committee.

Sincerely,

JANE M. LYDER,
Legislative Counsel.

[Enclosure.]

RESPONSES OF R.M. "JOHNNIE" BURTON TO QUESTIONS FROM SENATOR DOMENICI

Question 1. Please comment specifically on the estimated timeline for bringing S. 2253 leases to production from the date of enactment of this Act to the date of bringing the gas to market?

Answer. S. 2253 requires that a lease sale be held within one year of the date of enactment. We estimate that the first wells would be drilled within two years after the lease sale and estimate that potential production could begin within three to four years after the first commercial discovery.

Question 2a. Please compare, with your most recent estimates, the estimated resource base for the area covered by S. 2253 with the area covered under the 5-year plan.

Answer. Our resource estimates for the area covered by S. 2253, based on our 2003 interim update, are 930 million barrels of oil and 6.03 trillion cubic feet of natural gas. Our estimates for the area proposed for consideration in the draft proposed 5-year plan for 2007-2012, are 530 million barrels of oil and 3.42 trillion cubic feet of natural gas. Based on these estimates, the area covered by S. 2253 could make an additional 400 million barrels of oil and 2.61 trillion cubic feet of gas available.

The most recent 2006 resource assessment for the Gulf of Mexico has not yet been broken down to this level of detail. The resource numbers are not expected to change dramatically from the 2003 update numbers. We will have an update based on our 2006 assessment this fall.

Question 2b. Do you have an estimate for how many homes over what period of time could be heated and cooled by this amount of natural gas?

Answer. The estimate of 6.03 trillion cubic feet of natural gas would meet the total energy needs for approximately 6 million homes for 30 years using current technological parameters (consumption rates and efficiency standards).

Question 3a. Please comment on the estimates at the time that the currently leased portions of 181 were included in the 1997 5-year plan. Please comment on whether those estimates on that same area have changed today?

Answer. In 2001, Secretary announced the modified area for leasing in the Sale 181 area. The decision modified the 1997-2002 five-year plan sale area from 5.9 mil-

lion acres to 1.5 million acres. The Department estimated the modified area contained 1.25 trillion cubic feet of gas and 185 million barrels of oil. Based on MMS's 2003 interim assessment, estimates for the modified area are 4.46 trillion cubic feet of gas and 800 million barrels of oil. The most recent resource estimate for the Gulf of Mexico has not yet been broken down to this level of detail. The resource numbers are not expected to change dramatically from the 2003 update numbers.

Question 3b. Also, please comment on how much, if any, oil and gas has been produced from that area? How much money has the federal government received from leasing in that area?

Answer. From the modified sale 181 area 57,000 barrels of oil and 46 billion cubic feet of gas have been produced. There have been 7 additional discoveries in the modified sale 181 area, and production from them is expected to commence in 2007. Nine lease sales were held prior to the modified Sale 181 in December 2001. There have been 3 sales held in the modified area. Sale 181, held December 2001; Sale 189, held December 2003; and Sale 197, held March 2005. Under these three sales, 119 leases were awarded; \$355.5 million was paid in bonus bids, and \$26.8 million has been paid in rentals and royalty.

Question 4a. Are there currently any leases east of the Military Mission Line? If so, who holds these leases?

Answer. Yes, there are 126 existing leases east of the Military Mission Line.

Current Holders of Leases east of Military
Mission Line
Amoco
Anadarko Petroleum Corp.
Apache Corp.
BP Exploration Inc.
Chevron Conoco Inc. ConocoPhillips
Kerr-McGee Corp.
Mobil Oil
Murphy Exploration & Production Company
U.S.A.
Union Oil

Question 4b. If so, can you comment on what the Defense Department's position has been on these leases? Do you have a Memorandum of Understanding with the Defense Department on production in the Gulf? Please comment.

Answer. The Department of Defense (DOD) and DOI signed a Memorandum of Agreement (MOA) on July 20, 1983. Several sales were held in the Eastern Gulf of Mexico (EGOM) prior to the MOA, including Sale 5 (1959), Sale 32 (1973), Sale 65 (1978) and Sale 69 (1983). In accordance with the MOA, DOI and DOD work closely to minimize potential conflicts between oil and gas exploration and production and military activities in the EGOM. Final Notices of Sale announce stipulations and identify the blocks to which stipulations will be attached, and what actions must be taken (or not taken) in accordance with the stipulations. In general, there are certain times when activities can or cannot occur and/or places where permanent structures must be subsea.

Question 5. Can you comment on the Cuban government's offshore operations? How close to the Florida's coast are they producing or issuing leases?

Answer. Repsol, the largest Spanish oil company, proposed drilling two wells off Cuba. One of the wells is about 100 nautical miles southwest of Key West and the other well is about 75 nautical miles south of Key West. The latter location was drilled in June 2004 (the first deep water well off Cuba). The latest information that MMS has, indicates Repsol is still planning to drill the other location in 2006.

An *Oil and Gas Journal* article in 2000 included a map showing the deep water blocks off northern Cuba in addition to well locations in the blocks northwest of Cuba. These are shallow wells drilled in the 1970's and 1980's by the Deep Sea Drilling Project funded by the National Science Foundation to help unravel the geologic history of the Gulf of Mexico. Another well drilled by Repsol is about 55 nautical miles south of the Florida Keys.

Question 6. Please comment on MMS's view on revenue sharing on OCS production.

Answer. The Statement of Administration Policy on H.R. 6—The Energy Policy Act of 2005, states. "We oppose the significant new funding authorizations and diversion of OCS revenues contained in the Coastal State impact assistance provision in section 371. The Administration welcomes the opportunity to discuss further with the Senate means to provide greater access to oil and natural gas resources on the OCS in cooperation with States who support such development."

Question 7. In your testimony you give a brief history of the 181 Area. Can you share any thoughts you might have on why the State of Florida did not challenge the Department of the Interior's inclusion of 181 in the 1997-2002 5-Year Plan?

Answer. In February 1995, Governor Lawton Chiles responded to the request for comments on the preparation of a 5-year leasing program for 1997-2002 by stating that he would oppose oil and gas leasing within 100 miles of Florida. Later that year, in August, MMS issued a draft proposed program with a lease sale area the Eastern Gulf of Mexico Sale 181, encompassing 671 blocks located off Alabama and more than 100 miles off Florida. This configuration was based mainly on consideration of Alabama's general support for leasing off its coast, Florida's 100-mile buffer policy, and resource potential. Governor Chiles commented that the draft proposed program configuration for Sale 181 was acceptable since it excluded blocks within 100 miles of Florida.

In February 1996, MMS issued a proposed program with the same Sale 181 configuration but included an option to expand the area by adding 384 blocks in deeper waters more than 100 miles off Florida. Both Governor Chiles and Governor Fob James from Alabama indicated support for the expanded Sale 181 area. The proposed final program, issued in August 1996, included the Sale 181 area revised to add the 384 deep water blocks and to exclude the 22 blocks within 15 miles of Baldwin County, Alabama. In October 1996, Governor Chiles agreed as the sale was not within 100 miles of Florida, and in November, the 5-year program for 1997-2002 was approved with the Sale 181 area consisting of 1033 blocks located more than 15 miles off Alabama and more than 100 miles off Florida.

Question 8a. What steps have you taken since the recent news reports concerning the royalties due to the federal government on oil and gas leases, to ensure that the government is receiving its appropriate share?

Answer. There has been recent media interest concerning natural gas royalty collections from Federal leases and the relationship of royalty incentives for deep water production in the Gulf of Mexico to current high energy prices. In the January 23, 2006, article titled, "As Profits Soar, Companies Pay U.S. Less for Gas Rights," the New York Times made a faulty assumption leading to the erroneous conclusion that royalties had been underpaid by \$700 million in Fiscal Year 2005. MMS developed a PowerPoint presentation, which addresses the issues raised in the recent news articles, and briefed the staff of the Senate Committee on Energy and Natural Resources. The main conclusions of the presentation are:

- Royalty values paid to the Minerals Management Service are consistent with market prices for natural gas;
- The decline in natural gas royalty revenues is in part the result of changes in the natural gas production profile from federal leases;
- Royalty valuation regulations since 2000 have clarified the rules and increased royalty collections; and
- MMS maintains an aggressive and comprehensive audit program.

The Government Accountability Office (GAO), which was asked to review our findings, generally agrees with our assessment.

With respect to deep water royalty relief, it is important to emphasize the following:

- Royalty incentives were established in the Deep Water Royalty Relief Act of 1995 to encourage development of new supplies of energy;
- The purpose of this incentive was to promote investment in a particularly high-cost, high-risk area;
- Since the enactment of the incentive, the deep waters of the Gulf of Mexico have become one of the most important sources of domestic oil and gas production; and
- Once the royalty relief established by the Act became discretionary in 2001, we reduced the amount of royalty relief allowed on new leases.

The Administration contested a lawsuit, eventually won by lessees, which increased the magnitude of royalty relief on leases issued between 1996 and 2000 and resulted in significantly more royalty relief provided to companies. However, we have ensured that price thresholds limiting royalty relief when oil and gas prices are high have been included in all newly issued deep water leases.

MMS will continue to aggressively pursue its mission by safeguarding public resources and to assure a fair return on America's natural resources to the American taxpayer.

Question 8b. What steps were you taking before the stories (and after) to ensure that company lessees are in full compliance with all applicable royalty laws?

Answer. MMS maintains a strong and comprehensive audit program strengthened by the combined efforts of professional auditors in MMS and State and Tribal governments. Since 1982, the combined efforts of these auditors have resulted in the collection of more than \$3 billion in additional royalties.

We implemented new aggressive compliance goals by establishing a three year compliance cycle compared to a previous compliance cycle of six years or more. We increased the percentage of revenues being review and/or audited within this shortened cycle from 10 percent in FY 2003 to 71 percent in FY 2005.

MMS has fully implemented the recommendations of an Inspector General's 2003 review of the royalty audit program. In 2005, an independent certified public accounting firm conducted a peer review of our royalty audit program and gave it a clean bill of health.

Question 9. Do the January 2005 administrative lines drawn by the Department of the Interior and published in the *Federal Register*, affect the application of the Coastal Zone Management Act in any way? Please explain.

Answer. The new administrative boundaries announced in the *Federal Register* Notice are intended to be MMS planning tools to facilitate communication about multiple offshore uses in light of the Energy Policy Act of 2005. For Coastal Zone Management Act (CZMA) purposes, a state is affected if actual or potential impacts of the proposed activity on the state can be reasonably foreseen. The Director of MMS makes the final determination for determining reasonably foreseeable coastal effects for OCS Lease Sales. The new administrative boundaries do not preclude any State from making a request to be an affected State under Outer Continental Shelf Lands Act or CZMA for OCS permits and plans.

Question 10. Please comment on the impact of Hurricanes Katrina and Rita on OCS production; on damage to infrastructure (platforms, pipelines etc.); and please comment on the number of significant spill in the aftermath of the hurricanes.

Answer. During the hurricanes approximately 100 percent of production was shut-in. Six months after Katrina, approximately 76 percent of the oil production and 84 percent of the gas production has been restored. One hundred thirteen structures were destroyed, but they account for less than 2 percent of the Gulf's production. Damage has been found on an estimated 360 pipelines and that number is anticipated to increase as more underwater inspections are completed. In addition a total of 52 platforms were also damaged. No impacts from spills have been reported from OCS facilities.

RESPONSES OF R.M. "JOHNNIE" BURTON TO QUESTIONS FROM SENATOR TALENT

Question 1. How much additional natural gas is available in areas that are currently under some kind of exploration moratoria?

Answer. Based on the MMS. 2006 Inventory Report to Congress, 85.79 trillion cubic feet of gas are estimated to be in areas that are currently either under moratoria and/or Presidential withdrawal.

Question 2. Typically, as natural gas reserves are developed, what have we seen as far as the accuracy of initial reserve estimates? It is my understanding that, over time, technology allows us to economically produce much more than we initially thought we could.

Answer. There are many factors that come into play. It generally is true, however, that as technology improves the ability to drill more economically and to tap deeper or more difficult resources increases resulting in the rise of the resource estimate. As exploration and development activity take place in a new area, new information and technology may raise or lower initial estimates for oil and gas resources.

Question 3. What is the track record with respect to spills in the Gulf of Mexico? Do you expect that the additional production from the Lease 181 area will represent a threat to the Florida coastline, particularly with respect to natural gas production?

Answer. The OCS has a very admirable track record. Regulations have been developed that require a variety of safety devices and measures. Over the past three decades, MMS has established an enviable environmental and safety record. We have seen the oil-spill rate continue to drop from 19,600 barrels spilled per billion barrels produced from 1971 to 1980, to 14,200 barrels spilled per billion barrels produced from 1981 to 1990, to 6,500 barrels spilled per billion barrels produced from 1991 to 2000. This has been a 67 percent decrease over this 30 year period. The OCS activities have proven to be one of the safest ways to provide for our nation's energy needs. As reported by the National Academy of Sciences, over 150 times more oil enters the North American oceans from natural seeps than from OCS oil and gas activities.

Recent discoveries in the Sale 181 area have been mostly gas. However, based on the amount of oil that may be produced from the new area being considered in the draft proposed program and the track record of the offshore industry it is very unlikely that a large spill (>1,000 barrels) would occur. The most recent oil spill modeling in this vicinity (done for the Gulf-Wide 2003-2007 Multi-Sale EIS) for a large spill found that there is only a one percent probability that a spill would occur and, assuming no response is conducted within 30 days, reach Florida State water (approximately 10 miles offshore).

RESPONSES OF R.M. "JOHNNIE" BURTON TO QUESTIONS
FROM SENATOR BINGAMAN

Question 1. What are your current resource estimates for the area from the original Lease Sale 181 area that is required to be offered for leasing under S. 2253? What is the acreage of this area?

Answer. S. 2253 would make 3.6 million acres available for lease while maintaining a 100 mile buffer zone along the Florida coast. Leasing in the area east of the Military Mission Line, an area of approximately 725,000 acres, would be subject to the agreement and approval of the Secretary of Defense. MMS resource estimates for the area covered by S. 2253, based on our 2003 interim update are 6.03 trillion cubic feet of natural gas and 930 million barrels of oil.

Question 2. What are your current resource estimates for the area from the original Lease Sale 181 area that would be offered for lease under the draft proposed 5-year plan? What is the acreage of this area?

Answer. The draft proposed 5-year plan includes consideration of leasing in an expanded area within the original Sale 181 area. The expanded area is approximately 2 million acres. This area is in addition to the 1.5 million acres within the original Sale 181 area already offered for leasing under the current 2002-2007 5-year program. MMS estimates for the area identified in the draft proposed plan are 3.42 trillion cubic feet of natural gas and 530 million barrels of oil.

Question 3. What are your resource estimates for the area from the original Lease Sale 181 area that could be offered for lease under S. 2239 (Martinez-Nelson)? What is the acreage of this area?

Answer. The most recent 2006 resource estimate for the Gulf of Mexico has not yet been broken down to this level of detail. The area we believe would be available for new leasing under S. 2239 is estimated to be approximately 800,000 acres.

Question 4. What analysis has the Department undertaken with respect to the environmental impacts of producing in the area to be offered for lease under S. 2253?

Answer. MMS is currently working on an Environmental Impact Statement (EIS) for the next 5-Year Program and on a Gulf of Mexico multi-sale EIS that will include most of the area that is considered in S. 2253. If this bill is passed we will need to review what is included in this EIS to determine if it needs to be expanded to address the additional area.

Question 5. Please describe the existing oil and gas infrastructure in the vicinity of the area to be offered under S. 2253.

Answer. The area to be offered under S. 2253 is immediately to the east of the modified Sale 181 area. Twelve wells have been drilled in the vicinity of S. 2253 area with seven discoveries. Development of this area is planned through a centralized production unit called Independence Hub. Construction is planned to begin later this year with production commencing in 2007.

AMERICAN GAS ASSOCIATION,
Washington, DC, March 7, 2006.

Hon. PETE DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington,
DC.

Re: Mr. Thomas Skains' follow up responses—2/16/06 testimony

DEAR CHAIRMAN DOMENICI: In response to the inquiries from you and Senator Jim Talent, we are pleased to provide these answers. Mr. Thomas Skains' response is attached to this letter. If you have any further questions concerning the testimony given on Thursday, February 16, 2006, please contact me at 202-824-7220.

Sincerely,

CHARLES H. FRITTS,
Vice President, Government Relations.

[Enclosure.]

RESPONSES OF THOMAS SKAINS TO QUESTIONS FROM SENATOR DOMENICI

Question 1. What do you estimate the impact of opening lease sale 181 will be on residential consumer gas bills?

Answer. Given the dynamic nature of natural gas markets, it is difficult, if not impossible, to predict precisely the impact of opening Lease Area 181 upon residential gas bills. We do not know how much gas will be produced from that area or when it will be produced. Nor do we know what other factors will be at work in the market when production is finally realized. For example, the impact of opening Lease Area 181 upon residential bills will turn upon factors such as what other sources of gas will come on line at that time, the weather (which is a principal driver of demand), and environmental laws and regulations that affect the volume of gas consumed by electricity generators.

We do, however, know two things. *First*, opening Lease Area 181 will bring a significant amount of new gas to the market, and prices will necessarily be lower than they would be otherwise. *Second*, because supply and demand are now in such a tight balance (as they have been for the past five years), even small changes to the supply-demand balance have large impacts on price. For example, a warm summer in 2005 (17 percent warmer than normal) caused more gas to be used in electricity generation to meet air conditioning demand, with the result that gas prices at the end of the summer were 50 percent higher than at the beginning of the summer. Conversely, gas prices have been dropped by half since December, 2005, largely as a result of a very mild January. These dramatic price movements were the result of market changes of only a few billion cubic feet (Bcf) per day in a total national market of 60 Bcf per day. Ten years ago a daily change of several Bcf per day (whether up or down) had little impact on prices because there was slack in the gas production and delivery system. Today, the system is operating at full throttle, and there is no slack. Consequently, even small changes have a large impact upon price.

In sum, any appreciable change in gas supply or demand can result in significant price movement, and production from Lease Area 181 would be appreciable.

Question 2a. Please describe, in simple terms, over a three or five-year period (or similar time period)—what has been the typical change to an average middle class consumer's gas bill?

Answer. The impact of higher natural gas prices on residential consumer bills has been dramatic over the past several years. Based on data from the Energy Information Administration, the average winter heating bill (Oct.-March) was \$471 in the winter of 1999-2000. That bill is expected to reach \$920 this winter, an increase of 95 percent. Further, had this winter not been the warmest January on record but instead had been a "normal" winter, the EIA estimates that the average U.S. heating bill would have increased roughly 50 percent just from last winter to this winter. The increase in bills since 1999-2000 has been similar in all parts of the country—up 76 percent in the Northeast, 116 percent in the Midwest, 96 percent in the South and 93 percent in the West.

Question 2b. What has been the change over this past year in the region that you operate in? Do you know what the average change in the Southeast has been?

Answer. The unprecedented increase in wholesale natural gas prices this year has had a significant and adverse impact on the winter heating bills of our customers and mirrors the national picture. Within the market areas served by Piedmont Natural Gas (North Carolina, upstate South Carolina and the Metropolitan Nashville area in Tennessee), the average residential bill for the current winter has increased anywhere from 35% to 50% when compared to last winter's (2004/2005) heating bill.

During the winter of 2004/2005, the average 5-month winter bill for a residential customer on our system ranged from \$500 to \$800. Based upon actual weather for the first three months of the current winter (2005/2006) and assuming normal weather patterns for the remainder of the winter period, the average 5-month winter bill for a residential customer will increase to a range of \$700 to \$1,100.

Question 3a. Explain the role that your company has (and company's that fit your profile) in purchasing gas for consumers?

Answer. Piedmont Natural Gas is a natural gas utility. Our principal function is to transport and distribute natural gas from interstate pipelines or storage facilities to natural gas consumers—primarily residential, commercial and industrial consumers as well as electricity generators. In some cases, natural gas utilities purchase gas on behalf of their customers and deliver it to them. In other cases, the customer purchases natural gas directly from a gas producer or marketing company, and we simply deliver the gas to them. In either case, natural gas utilities, similar to FedEx or UPS, are compensated only for the delivery of the product—natural gas. The regulated cost-based delivery charge is overseen and approved by a state public utility commission. We flow through our gas costs to consumers on a dollar for dol-

lar basis without mark-up and, therefore, do not benefit at all from a higher cost of the natural gas commodity. Rather, higher natural gas costs flow back in their entirety to natural gas producers or marketing companies that aggregate gas supplies—we merely serve as their collection agent.

Question 3b. Have you benefited from either this rise in price or the volatility in price over the last few years?

Answer. In fact, higher prices have a number of negative consequences for natural gas utilities. Higher prices reduce the demand for natural gas, and, therefore, they reduce the need for the delivery service we provide. In addition, higher prices make our service less affordable to consumers, and they also increase our uncollectible accounts. Higher prices also increase the cost of financing storage inventories and receivables. Additionally, higher prices strain the relationship we have with our customers, most of whom assume, incorrectly, that we do benefit from higher prices. Ultimately, we want what our customers want—adequate supplies of natural gas at affordable prices.

Question 4a. What can utilities do to bring down the price of gas for consumers?

Answer. At a macro level, the price of natural gas is determined by the balance of supply and demand in the marketplace, and there is little that natural gas utilities can do to have a significant impact on that balance and, consequently, on the market price. We can, and do, however, inform our customers of market conditions and how they can use gas most efficiently and wisely. We believe that this does serve to ease some of the pressure in the market, but by itself is not capable of overcoming the impact on price from the growth in demand we are seeing for natural gas from new customers (particularly electricity generators) coupled with stable or declining supplies of natural gas.

That said, while our ability to affect the overall price level of natural gas directly is negligible, we can (and do) take actions that reduce price volatility and buffer our customers from absorbing the full impact of price increases. For example, most gas utilities like Piedmont use financial and physical hedges and leveled billing to mitigate large fluctuations in customer bills. In fact, over the course of this winter alone, Piedmont's hedging programs will have saved our customers \$20 million. We also construct a diverse and competitive gas-supply portfolio to meet our customers' long-term needs by pursuing strategies that include competitive bidding processes for gas supply contracts, the release of interstate pipeline capacity, upstream asset management arrangements and secondary marketing and off-system sales. These strategies saved our customers an additional \$27 million in 2005 in reduced gas costs. Additionally, we try to purchase gas and place it in storage when prices are most attractive. The availability and the utilization of these storage assets resulted in another \$28 million in savings to our customers. Obviously, all of these measures benefit the customer in terms of his monthly bill, but none directly moves the price of the product—we simply do not have that ability.

Question 4b. What, in your opinion, can the Congress do?

Answer. Because supply and demand are in such a tight balance, any increase in supply or reduction in demand should have a favorable effect in lowering the price of gas or moderating its rise. There are several steps Congress can take to increase supply or reduce demand. Congress can also take steps to help those who have been impacted the most by rising natural gas costs.

Steps to Increase Supply

Intermountain West: Congress should encourage the Administration (BLM, Forest Service) to issue short-term waivers for expansion of the Rockies (inner mountain west region) drilling window for this winter.

Outer Continental Shelf (OCS): Congress should encourage legislation that lifts current restrictions on the OCS and opens federal areas to exploration and production of natural gas resources.

Alaskan Natural Gas: Congress should support efforts to expedite and facilitate the construction of the Alaskan natural gas pipeline to bring Alaskan natural gas supplies to the lower 48 states.

Liquefied Natural Gas: Congress should encourage the development of infrastructure to accept new supplies from LNG.

Natural Gas Pipelines and Facilities: Congress should encourage FERC to continue acting on an emergency basis as needed and modify and implement its rules to accelerate and streamline the permitting and blanket certificate procedures for natural gas pipelines, especially to facilitate hurricane recovery efforts.

Steps to Help Low Income Energy Consumers

LIHEAP. Congress can increase funding for LIHEAP for FY06 up to the authorized \$5.1 billion and consider amending LIHEAP eligibility criteria to allow larger numbers of low-income residents to take advantage of the program.

Steps to Reduce Demand

Question No. 5 below goes to the heart of this issue. The fastest growing sector of demand for natural gas is electricity generation. Given that natural gas supplies are constrained, it is simply not wise policy to continue to rely on natural gas to provide 90 percent or more of our new electricity generation capacity. AGA therefore supports efforts to diversify the electricity generation fuel mix.

Fuel diversity at electricity generation facilities aside, end-user conservation can play an important role in moderating demand and should be encouraged. Similarly, the direct use of natural gas for those applications it is best suited for should be encouraged as well in order to fully leverage the inherent efficiency of the natural gas distribution system and infrastructure.

Question 5. Explain the results of the proliferation following trend. Electricity generation shifts more and more toward natural gas while domestic production remains flat or decreases?

Answer. The trend is obvious and stunning. Roughly 90 percent of the electricity-generating capacity added over the last decade has been fueled by natural gas. In 2003, 19 percent of the natural gas consumed in the U.S. was for electricity generation. This is projected to increase to 33 percent by the year 2020. While natural gas consumed for electricity generation has increased by roughly 1 trillion cubic feet per year since 1999, natural gas production has fallen by nearly 1 trillion cubic feet annually over the same timeframe (a significant portion of the decline in 2005 was attributable to the severe hurricane season.)

Historically, the demand for natural gas declined in the summer months, allowing for the refilling of gas storage facilities with minimal impact on prices. Today, because electricity demand peaks in the summer to meet air conditioning loads, natural gas demand now spikes in the summer as generators purchase gas to meet their summer needs. This fact was clearly evidenced last summer when gas prices moved upwards throughout the summer—from a level of roughly \$6.00 per MMBtu to roughly \$9.00 per MMBtu in response to a summer that was 17 percent warmer than normal.

Natural gas prices have become extremely high and volatile over the past five years. High and volatile prices will remain with us until we increase gas supply and/or decrease demand. Unfortunately, little has been done on the supply side. The offshore moratoria remain in place, too few LNG terminals have been constructed, an Alaskan natural gas pipeline is at least a decade away, and expansion of Lower-48 onshore drilling is slow and problematic.

The bottom line is that supply is not growing, but demand is, primarily as a result of the demand for gas to fuel electricity generators. Gas supply must be increased, existing gas fired power generation facilities should be encouraged and incented to have dual fuel capability, and new generation facilities must be diversified. Nuclear power and clean coal technologies, as well as renewable technologies, must lead the way in this diversification.

RESPONSES OF THOMAS SKAINS TO QUESTIONS FROM SENATOR TALENT

Question 1. Assuming we pass this bill and it becomes law, how long after that time will it take to begin producing oil and gas from the Lease 181 area? Mr. Gravitz testified that it may be five or six years at the earliest—my understanding is two years at most once we pass this bill.

Answer. AGA's membership includes natural gas utilities rather than natural gas producers. The response from the witness who represented natural gas producers would be the best source of this information.

We do, however, encourage Congress to include language in S. 2253 that would not only expedite production in Lease Area 181 but also prevent dilatory litigation.

Question 2. What would you expect the rate of annual production will be from the Lease 181 area?

Answer. ACA's membership includes natural gas utilities rather than natural gas producers. The response from the witness who represented natural gas producers would be the best source of this information.

Question 3. What do you anticipate will be the affect on price?

Answer. This question is similar to the Chairman's Question No. 1. Our response is identical.

Given the dynamic nature of natural gas markets, it is difficult, if not impossible, to predict precisely the impact of opening Lease Area 181 upon residential gas bills. We do not know how much gas will be produced from that area or when it will be produced. Nor do we know what other factors will be at work in the market when production is finally realized. For example, the impact of opening Lease Area 181 upon residential bills will turn upon factors such as what other sources of gas will come on line at that time, the weather (which is a principal driver of demand), and environmental laws and regulations that affect the volume of gas consumed by electricity generators.

We do, however, know two things. *First*, opening Lease Area 181 will bring a significant amount of new gas to the market, and prices will necessarily be lower than they would be otherwise. *Second*, because supply and demand are now in such a tight balance (as they have been for the past five years), even small changes to the supply-demand balance have large impacts on price. For example, a warm summer in 2005 (17 percent warmer than normal) caused more gas to be used in electricity generation to meet air conditioning demand, with the result that gas prices at the end of the summer were 50 percent higher than at the beginning of the summer. Conversely, gas prices have been dropped by half since December, 2005, largely as a result of a very mild January. These dramatic price movements were the result of market changes of only a few billion cubic feet (Bcf) per day in a total national market of 60 Bcf per day. Ten years ago a daily change of several Bcf per day (whether up or down) had little impact on prices because there was slack in the gas production and delivery system. Today, the system is operating at full throttle, and there is no slack. Consequently, even small changes have a large impact upon price.

In sum, any appreciable change in gas supply or demand results in significant price movement, and production from Lease Area 181 would be appreciable.

CF INDUSTRIES HOLDINGS, INC.,
Long Grove, IL, March 8, 2006.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR CHAIRMAN DOMENICI: Thank you for the opportunity to appear before the Senate Committee on Energy and Natural Resources on February 16, 2006 to present the views of CF Industries Holdings, Inc. and The Fertilizer Institute on the importance of approving natural gas drilling on the Outer Continental Shelf.

Attached is our answer to Senator Talent's question provided in your letter of February 22, 2006.

I appreciate your leadership on this very important issue.

Sincerely,

STEPHEN R. WILSON,
Chairman & CEO.

[Enclosure.]

RESPONSE OF STEPHEN R. WILSON TO QUESTION FROM SENATOR TALENT

Question 1. You highlight in your testimony the adverse affect of high natural gas prices on American fertilizer production. How much time do we have to act to ensure that we retain the jobs and production capacity associated with fertilizer production and other similarly situated industries? I am certain your industry cannot hold on for long with gas prices three times higher than historical levels.

Answer. To answer the production capacity question we would have to be able to predict both natural gas prices and fertilizer prices. As evidenced by the last few years, it is impossible to predict either. However, fertilizer is a commodity product for which natural gas cost is the key factor. That, coupled with the fact that natural gas currently makes up over 90 percent of the cost of ammonia production, means that this industry needs a competitive natural gas pricing environment. What is important to realize is that many of our global competitors are securing natural gas for fertilizer at costs that are far below what we currently pay. While predicting the future is not possible, it is important to note that 38% of U.S. ammonia production capacity was closed permanently between 1999 and 2005.

RESPONSES OF TIMOTHY S. PARKER TO QUESTIONS FROM SENATOR DOMENICI

Question 1. Please comment specifically on your companies' environmental record in the Gulf of Mexico. What was the impact of Hurricanes Katrina and Rita on your operations in the Gulf?

Answer. Dominion Exploration & Production, Inc. has an outstanding environmental record and complies fully with all applicable environmental regulations. The company has repeatedly been a national finalist for awards presented by the Department of Interior's Minerals Management Service. Dominion received the prestigious 2002 Safe Operations and Accurate Reporting (SOAR) award from the MMS. The SOAR award recognizes companies that are outstanding in the areas of offshore operating performance and fiscal responsibility. The MMS considers SOAR recipients to be among the safest and most committed to timely and accurate financial reporting of those companies operating production platforms on the Outer Continental Shelf of the Gulf of Mexico. Dominion also received the 2001 National Safety Award for Excellence (SAFE). This award recognized the company's exceptional safety record and its performance on its Gulf of Mexico facilities. The company also earned the Lake Charles district SAFE award for 2005 and the national SAFE award in 1998 as CNG Producing, the former name of Dominion E&P.

Except as noted below, Hurricanes Katrina and Rita resulted in minor physical damage to Dominion-owned facilities in the Gulf of Mexico. Our production platform at Main Pass 270 was significantly damaged during Hurricane Katrina, but repairs on this facility have been completed and the field was returned to production in February of 2006. Other facilities received minor damage and were repaired more quickly. The major impact of the storms on Dominion was damage to third party facilities downstream of our platforms, which damage impacted production from most of our fields in the Gulf of Mexico. Almost all of this production has been restored.

Question 2. In your written testimony regarding the resource assessments of 181 you say, "if past experience is a guide, actual production could end up being much more than [the current estimates]". What do you mean by this? Can you give us past examples of estimates being substantially lower than actual production in the Gulf?

Answer. Typically, the ultimate size of the resource base in a basin or area exceeds initial estimates. Since the geologic and other subsurface characteristics of unexplored or under-explored regions, such as lease sale 181, cannot be determined directly until drilling occurs, indirect techniques and procedures must be used to develop initial resource estimates. Although improved technologies and increased understanding of hydrocarbon systems have allowed for more accurate assessments of resource potential, significant uncertainties remain and have generally resulted in conservative initial estimates. The estimates of ultimate recovery usually increase over time as drilling results in the extension of proved reservoir areas and the in-field discovery of one or more new reservoirs. The addition of new drilling data frequently improves the understanding of the nuances of an area's geology and that often leads to new ideas as to how and where hydrocarbons may be trapped. Finally, continuing technological advances improve the ability to find new resources, recover more production from existing reservoirs, and also lower the economic threshold for marginal discoveries. All of these factors contribute to the ultimate resource size usually being greater than initial estimates.

As I indicated in my testimony, in the areas of the Gulf of Mexico where industry has been allowed to buy leases and explore, production has been three times as much as was once thought to be there. The current resource estimate, according to the MMS, is that there is nearly five times as much remaining to be found.

A 1997 study published by the Energy Information Administration further supports this concept at an individual field level. The study analyzed data from the 200 largest liquid fields in the United States over the period 1978 through 1993. The Ultimate Recovery Appreciation (URA) ratio, defined as the generally observed increase of estimated ultimate recovery from the field over time, was determined for each field. About 85 percent of the fields had a URA greater than 1, which corresponds to increasing ultimate recovery over time. About 2/3 of the fields had a URA between 2 and 4, which means that estimates of ultimate recovery increased by a factor of 2-4 over the limited 15-year time period covered by the study. Dominion's experience with its two Deepwater Gulf of Mexico fields that have significant production history supports the recovery appreciation concept.

Question 3. How many facilities do you currently have in the Gulf of Mexico? How much oil and gas do you produce in the Gulf?

Answer. Dominion has interests in 61 active platforms and 156 active wells in the Gulf of Mexico. Production net to Dominion's interest in February 2006 was 169 mil-

lion cubic feet of natural gas per day and 43.5 thousand barrels of liquids per day, which is 430 million cubic feet of gas equivalent per day (with liquids converted to gas equivalent at a ratio of 6.1) or 160 billion cubic feet of gas equivalent per year.

Question 4. Comment on your operations in the currently leased portions of 181.

Answer. Dominion has interests in two fields currently being developed in currently leased portions of sale 181. The San Jacinto field in Desoto Canyon 618/619 and the Spiderman field in Desoto Canyon 620/621 were discovered in late 2003 and early 2004. Both discoveries are very attractive gas fields. The Independence Hub Project, a production platform and pipeline owned by a third party are currently being constructed to handle production from San Jacinto, Spiderman and several other industry discoveries in the area. First production is expected in 2007. Dominion also owns interests in seven other leases in the Desoto Canyon area that are being evaluated for drilling.

Question 5. Please estimate, how quickly could you bring the oil and gas to production in the area covered by S. 2253 of this bill were enacted today?

Answer. There are a number of variables that will impact the time to first production and the details are critical. Among the variables that will impact the actual time to initial production are the time to secure drilling and production permits, availability of a drilling rig and other equipment, distance from existing infrastructure, details of product characteristics, infrastructure capacity, availability of fabrication facilities and so on. An example of the time required to bring on production in a new area is Dominion's experience with the Spiderman and San Jacinto projects in the Desoto Canyon area of the Eastern GOM. Dominion is the operator of the San Jacinto project in Desoto Canyon blocks 618/619 and one of our co-lessees operates the Spiderman project at Desoto Canyon 620/621. The leases were part of OCS sale 181 held in December 2001 and were awarded in the first quarter of 2002. The Spiderman discovery well was drilled in the fourth quarter of 2003 and the San Jacinto discovery well was drilled in the first quarter of 2004. Additional delineation drilling, to further define the size of the accumulations, also occurred in 2004. In November 2004, a group of producers (the Atwater Valley Producers Group, which includes Dominion) and Enterprise Products Partners, L.P. executed agreements for Enterprise to build and install the semi-submersible Independence Hub platform at Mississippi Canyon 920 and the 124-mile, 24-inch diameter Independence Trail pipeline from the hub to existing pipeline infrastructure in the West Delta area of the GOM Shelf. Fabrication and installation activities are currently underway. The Independence Hub will handle production from several fields in the area, including Spiderman and San Jacinto. First production through the Independence Hub is expected in 2007, slightly more than five years from the date the leases were awarded and a little less than four years after initial drilling.

The five-year type of lead time would be typical of a stand-alone development remote from existing infrastructure, where new platform and pipeline facilities must be constructed before production can begin. Once sufficient infrastructure is in place, the lead time for smaller discoveries that can be tied back to existing structures could be much shorter. Assuming that capacity exists to handle the new production, the lead time for these type of developments could be shortened to as little as 18 months after drilling is completed.

Question 6. Are you confident that Dominion is in full compliance with all applicable royalty laws? Please comment on the process you are taking to ensure that Dominion is paying its proper share.

Answer. Dominion takes its royalty payment obligations very seriously and is confident that it is in compliance with all applicable rules and regulations. The company has an extremely competent staff that is responsible for making royalty payments to the United States. The average industry experience of the group's management staff exceeds 20 years. All managers are degreed professionals and three, including the Director, are CPAs. The group stays up to date with MMS regulations and standards issued by the Council of Petroleum Accountants Societies (COPAS). It has access to experienced counsel regarding pertinent legal issues. Finally, as indicated in question 1 above, Dominion was the recipient of the 2002 MMS SOAR award. Recipients of this award must be among the best-performing OCS lessees in terms of royalty reporting.

RESPONSES OF TIMOTHY S. PARKER TO QUESTIONS FROM SENATOR TALENT

Question 1. Assuming we pass this bill and it becomes law, how long after that time will it take to begin producing oil and gas from the Lease 181 area? Mr. Gravitz testified that it may be five or six years at the earliest—my understanding is two years at most once we pass this bill.

Answer. There are a number of variables that will impact the time to first production and the details are critical. Among the variables that will impact the actual time to initial production are the time to secure drilling and production permits, availability of a drilling rig and other equipment, distance from existing infrastructure, details of product characteristics, infrastructure capacity, availability of fabrication facilities and so on. An example of the time required to bring on production in a new area is Dominion's experience with the Spiderman and San Jacinto projects in the Desoto Canyon area of the Eastern GOM. Dominion is the operator of the San Jacinto project in Desoto Canyon blocks 618/619 and one of our partners operates the Spiderman project at Desoto Canyon 620/621. The leases were part of OCS sale 181 held in December 2001 and were awarded in the first quarter of 2002. The Spiderman discovery well was drilled in the fourth quarter of 2003 and the San Jacinto discovery well was drilled in the first quarter of 2004. Additional delineation drilling, to further define the size of the accumulations, also occurred in 2004. In November 2004, a group of producers (the Atwater Valley Producers Group, which includes Dominion) and Enterprise Products Partners, L.P. executed agreements for Enterprise to build and install the semi-submersible Independence Hub platform at Mississippi Canyon 920 and the 124-mile, 24-inch diameter Independence Trail pipeline from the hub to existing pipeline infrastructure in the West Delta area of the GOM Shelf. Fabrication and installation activities are currently underway. The Independence Hub will handle production from several fields in the area, including Spiderman and San Jacinto. First production through the Independence Hub is expected in 2007, slightly more than five years from the date the leases were awarded and a little less than four years after initial drilling.

The five-year type of lead time would be typical of a stand-alone development remote from existing infrastructure, where new platform and pipeline facilities must be constructed before production can begin. Once sufficient infrastructure is in place, the lead time for smaller discoveries that can be tied back to existing structures could be much shorter. Assuming that capacity exists to handle the new production, the lead time for these type of developments could be shortened to as little as 18 months after drilling is completed.

Question 2. What would you expect the rate of annual production will be from the Lease 181 area?

Answer. With all of the uncertainty regarding resource size, the rate of discovery and development timing, it is extremely difficult to forecast annual production from the Lease 181 area.

However, we would certainly expect rates to significantly exceed the current capacity of the Independence Hub project referred to above, which is 1 billion cubic feet of gas per day.

Question 3. What do you anticipate will be the affect on price?

Gas markets are notoriously complex, with many poorly understood variables and relationships making quantitative predictions impossible to make with any precision. However, gas markets are certainly forward-looking and the presence of meaningful future supplies cannot help but exert downward pressures on future prices. We are very hopeful that the area will be leased, that discoveries will be attractively sized and that the impact on future gas prices will be meaningful.

APPENDIX II
Additional Material Submitted for the Record

STATE OF LOUISIANA,
OFFICE OF THE GOVERNOR,
Baton Rouge, LA, January 30, 2006.

Ms. RENEE ORR,
*Chief, Leasing Division, Minerals Management Service, Gulf of Mexico OCS Region,
New Orleans, LA.*

DEAR MS. ORR: I have received the above-referenced Lease Sale document sent by MMS Director R.M. "Johnnie" Burton via letter dated November 16, 2005. As noted in the Environmental Assessment for Lease Sale 198, the assessment of the 2005 hurricane season's profound impacts on Louisiana's coastal resources and infrastructure is not yet complete. As such, we are currently unable to determine whether the assumptions made in the MMS consistency determination are still valid and therefore unable at this time to determine the consistency of Lease Sale 198 with our coastal zone management program. I do wish, however, to point out the growing tension between uncompensated support for OCS activities and the state's coastal zone management program.

The Louisiana Coastal Zone Management Program declares it to be the public policy of Louisiana ". . . to protect, develop, and where feasible restore or enhance the resources of the state coastal zone" (La. R.S. 49:214.22). As the state has mentioned in earlier OCS lease sale comment letters, it is apparent that OCS development has a significant impact on the Louisiana coastal zone and the fragile wetlands in this area. Numerous onshore support bases and extensive oil and gas infrastructure are located in Louisiana's Coastal Zone, through which OCS waterborne traffic and petroleum pipelines must pass. Consequently, Louisiana suffers disproportionate impacts resulting from development of oil and gas resources in the Gulf area.

Development that degrades the state's coastal resources is inconsistent with the state's public policy mandate to achieve protection of those resources in coordination with development. These impacts are also inconsistent with the public policy mandate in R.S. 49:214.22(3) prescribing, ". . . the minimization of adverse impacts of one resource use upon another." In an effort to bring OCS development in line with the state's coastal zone management policy, the state has advocated for significant sharing of recurring OCS revenues so that these revenues could be dedicated towards restoration and protection of coastal resources. A constitutional amendment has been passed by the Louisiana legislature and will put before a vote of the people this year that would dedicate OCS revenues received by the state exclusively to coastal restoration and hurricane protection. The state is thankful for the coastal impact assistance it has received from Congress, but this assistance has been sporadic and inadequate. Federal OCS policy has yet to make suitable provisions for the protection of the natural resources of coastal Louisiana.

The hurricane season of 2005 has highlighted the vulnerability of other resources in Louisiana's coastal zone. Many of the people and communities and much of the infrastructure in Louisiana's coastal zone have been displaced, damaged or destroyed. The people and infrastructure impacted include the workforce and energy infrastructure that provide vital support to federal OCS activities. Given the dramatic impacts of Hurricanes Katrina and Rita to the Louisiana Coastal Zone, the state has been required to reexamine its coastal zone management policies. It is abundantly clear that allowing development to occur where inadequate provisions are made for the protection of that development is irresponsible. Development that is not sustainable holds little benefit for the state and its coastal zone. As set forth in R.S. 49:214.22, a successful coastal zone management policy must include both development and protection of coastal resources.

Despite having abundant resources, in the form of OCS revenues, to protect the development required for supporting OCS activities in general and Lease Sale 198

activities in particular, the federal government has not devoted adequate resources to this end. Instead, Louisiana is being asked to continue its role as the workhorse for OCS development while no provisions are being made to ensure the sustainability of the onshore support for that development. Louisiana is expected to continue to be a "working coast," yet provisions are not being made to protect the workers, communities, and high concentration of energy infrastructure of our working coast. While the indirect economic benefits to the state of OCS activity is significant, the hurricanes have reminded us that any economic benefits pale in comparison to the need to assure that coastal communities are safe and protected. The amount of oil and gas activity off our coast means little if we have no coastal communities to take advantage of this activity.

We encourage MMS to help support Federal legislative changes so that the impacted coastal oil and gas producing states receive a significant share of OCS revenue. The Coastal Impact Assistance Program included in the Energy Policy Act of 2005 will provide an estimated \$540 million to Louisiana and its coastal parishes over the next four fiscal years. While Louisiana is appreciative of those additional resources, they represent only a fraction of the billions of dollars needed to properly restore and protect Louisiana's coast and its communities. We continue to urge Congressional authorization of recurring OCS revenue sharing so we can sufficiently address OCS-related impacts to our coastal habitats, communities and infrastructure. In light of Louisiana's continuing role in meeting America's need for oil and gas through our support for OCS operations, we strongly believe that the Nation should do its part to address those OCS-related impacts to our coast.

Federal policy on OCS leasing must include provisions for the protection of the very resources necessary for the exploration and production of these leases. Future OCS lease sales that are not accompanied by meaningful provisions for the protection of Louisiana's human and natural resources will likely be inconsistent with Louisiana's coastal zone management program.

I appreciate the opportunity to comment on Lease Sale 198 and the need for recurring Federal assistance in addressing OCS-related impacts to coastal Louisiana's natural resources, communities, and OCS-support capabilities.

Sincerely,

KATHLEEN BABINEAUX BLANCO,
Governor.

DOW CHEMICAL COMPANY,
Midland, MI, February 14, 2006.

Hon. PETE DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: I am writing to congratulate you and your colleagues, Senators Bingaman, Talent, Dorgan and others for introducing legislation to accelerate the natural gas production in Lease Sale 181 in the Gulf of Mexico. When I had the honor of testifying before your committee on October 6 of last year, I observed that expediting energy production in that area was an essential step to restore the global competitiveness of American manufacturing.

Fortunately, the mild winter in parts of the country has spared many Americans from devastating increases in home heating costs. Nonetheless, increases of up to 30 percent have still been felt. For industry, the current price of natural gas remains at globally uncompetitive levels. In a few years, Middle Eastern countries, including Iran, will have developed a robust chemical industry, based on natural gas available at a fraction of what we pay in the U.S. American companies will struggle to hold their own in this environment, and those who can will invest elsewhere if they want to grow.

We are not expecting a return to the natural gas prices of the 1990's. We are hopeful that renewed commitment to energy efficiency, greater fuel diversity and additional natural gas supply will allow us to compete using our advanced technology and economies of scale. You have already done much on efficiency and diversity. The missing piece of the puzzle is what you have proposed for Lease Sale 181. Bringing new gas to market within a year will be an excellent economic signal, and will show that natural gas can be safely recovered from previously restricted areas.

More and more Senators are coming to realize that natural gas is to manufacturing as flour is to baking. Natural gas is an important bridge to help us grow and have the ability to invest in the new technologies that will transform what energy we use and how we use it in the future. I hope the Senate will support your bill, and that it will lead to further action to secure additional American natural gas

from the deep waters of our Outer Continental Shelf. High quality jobs and investment depend upon it.

Sincerely,

ANDREW N. LIVERIS,
President, CEO and Chairman-Elect.

U.S. SENATE,
Washington, DC, February 15, 2006.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

Hon. JEFF BINGAMAN,
Ranking Member, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR CHAIRMAN DOMENICI AND RANKING MEMBER BINGAMAN: We are writing with regard to your recent introduction of legislation, S. 2253, which would require the Secretary of Interior to offer certain areas of the Gulf of Mexico known as the 181 area to oil and gas leasing. While we support expanding access for responsible exploration and production on the outer Continental Shelf (OCS), we cannot support legislation that accomplishes this goal but does not share any of the projected revenues (bonus bids, rents and royalties) that would be generated from this production with the states and local communities off of whose coastline the production will take place.

As you are aware, oil and gas production on the OCS currently contributes for about 30 percent of domestic oil production and 21 percent of domestic natural gas production. It is estimated that 60 percent of the oil and natural gas still to be discovered in U.S. will come from the OCS. Within the next five years, offshore production will likely account for more than 40 percent of oil and 26 percent of natural gas production. In fact, since the energy frontier of the OCS was officially opened to significant oil and gas production in the 1950s, no single region has contributed as much to our nation's energy production. About 95 percent of today's OCS production occurs in the central and western Gulf of Mexico.

Thanks to your leadership, the recently enacted Energy Policy Act of 2005 provides a significant stream of coastal impact assistance funding to—the coastal producing states where this production has taken place and will continue to take place for the foreseeable future. In the aftermath of Hurricanes Katrina and Rita and their impact on production in the Gulf of Mexico, we believe our nation better understands the importance of offshore oil and gas production to the nation's energy supply. In addition, these storms demonstrated clearly and concisely the extent to which we depend on the central and western portions of the Gulf of Mexico for our oil and gas supply.

While the area your legislation seeks to open up to exploration and production is technically in the Eastern Planning Area, given the state of Florida's objection to oil and gas production off its coastline, our states will provide the platform for any development that could take place as well as bear the impacts of that development. Without the ports, fabrication facilities and tens of thousands of miles of pipelines located in our states, it would be literally impossible to access these mineral assets at all.

Again, we were grateful to secure \$250 million per year for four years in coastal impact assistance for our states from the Energy Bill last year. We hope you will work with us during consideration of this legislation or any other similar legislation that comes before the Senate this year to provide coastal producing states with the additional significant and steady funding necessary to ensure that the coasts of our states are able to continue to serve as the nation's energy hub for years to come.

Thank you in advance for your consideration. With kindest regards, we remain
Sincerely,

TRENT LOTT,
U.S. Senator.

MARY LANDRIEU,
U.S. Senator.

AMERICAN FOREST & PAPER ASSOCIATION,
OFFICE OF THE PRESIDENT,
Washington, DC, February 17, 2006.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR PETE: I am writing to applaud you for your leadership in introducing S. 2253, a bill that will help restore balance to America's energy policy by allowing production in resource rich areas of the Gulf of Mexico.

For many years, federal policies have encouraged increased consumption of clean burning natural gas to meet environmental objectives. At the same time, other federal policies have restricted access to supplies of natural gas both on and offshore. This dichotomy has resulted in a serious supply-demand imbalance with natural gas prices rising to levels significantly impacting the global competitiveness of manufacturing in the U.S. Currently, energy is the third largest manufacturing cost for the forest and paper industry at 18 percent for pulp and paper mills—up from 12 percent just three years ago. For some mills, the cost of energy is about to eclipse employee compensation.

S. 2253 will bolster our nation's energy supplies in the near term, help put the natural gas market back on the road to recovery, and give American businesses a fighting chance to compete in global markets. We look forward to working with you to help pass this important legislation.

With kindest personal regards, I remain,
Sincerely,

W. HENSON MOORE,
President and Chief Executive Officer.

LEE COUNTY,
BOARD OF COUNTY COMMISSIONERS,
Fort Myers, FL, February 21, 2006.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR SENATOR DOMENICI: Please accept this letter of support for S. 2239, the Permanent Protection for Florida Act sponsored by the bi-partisan Senators from Florida. Please also accept copies of recent resolutions unanimously passed recently by the Lee County Commission in opposition to drilling off of the outer continental shelf of Florida.

We are striving to protect our natural resources and water quality at all angles and we feel strongly that drilling at the coast of Florida serves as a multiple threat to our coast.

This threat increases the potential harm to our marine ecosystem, the preservation of the beauty of our coast and beaches and the loss of our states' rights to protect our economy and coast line.

Thank you for the opportunity to share our concerns regarding drilling off the coast of Florida. We hope that you respect our efforts to protect Florida's world famous coast line for millions of our residents and visitors far into the future.

Sincerely,

TAMMARA HALL,
Chairwoman, District 4.

NATIONAL PETROCHEMICAL & REFINERS ASSOCIATION,
Washington, DC, March 6, 2006.

Hon. PETE DOMENICI,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR CHAIRMAN DOMENICI: NPRA, the National Petrochemical & Refiners Association, thanks you for your continuing efforts to increase access to domestic oil and natural gas supplies. I refer specifically to S. 2253, legislation that would require the Secretary of the Interior to open the "181 Area" to oil and natural gas leasing. Although NPRA hopes in time to see action on a broader front, aimed at most of the OCS areas that are currently off limits to oil and gas production, your bill has our wholehearted support. Increased access to domestic natural gas and oil supplies is essential to the nation's overall economic well-being and security.

As you know, NPRA members include virtually all U.S. refiners and petrochemical manufacturers. The viability of these industries depends on reliable and consistent access to energy supplies. The refining industry is a major user of natural gas in its facilities. The domestic petrochemical industry, which relies on natural gas as a feedstock, has been particularly hard hit as plants and well-paying jobs migrate to areas of the world with significantly lower feedstock prices. Thus, your action to increase supplies of domestically-produced natural gas will help keep a critical industry and high-paying jobs in the United States while increasing domestic energy security.

S. 2253 acknowledges the substantial natural resources available in the Gulf of Mexico, and its enactment will increase supply and could help ease the upward price pressure in oil and gas markets. In this crucial time, as the U.S. struggles to maintain its position as the preeminent base of manufacturing, increased access to domestic energy resources must be a top priority. S. 2253 directly addresses this issue and will, by increasing access to domestic oil and gas supplies, make the U.S. manufacturing sector in general, and our refining and petrochemical industries in particular, more competitive in the global marketplace.

NPRA supports S. 2253 in its present form and advocates its swift approval by the Committee on Energy and Natural Resources and passage by the full Senate. Again, NPRA wishes to thank you for your strong leadership on and commitment to this important issue. Efforts to increase supply from domestic sources of oil and natural gas will ensure that our nation remains strong and secure and that the petrochemical and refining industries continue to manufacture the bulk of their critical products in the United States.

Sincerely yours,

BOB SLAUGHTER,
President.

STATEMENT OF THE AMERICAN PETROLEUM INSTITUTE

API is a national trade association representing more than 400 companies involved in all aspects of the oil and natural gas industry, including exploration and production, refining, marketing and transportation, as well as the service companies that support our industry. Its mission is to advocate public policy in support of a strong, viable U.S. oil and natural gas industry essential to meet the energy needs of consumers in an efficient and environmentally responsible manner.

INTRODUCTION

Oil provides 97 percent of our transportation fuel. Manufacturers and farmers alike depend on petroleum to get their products to market.

Clean-burning natural gas provides more than 20 percent of total U.S. energy—generating about 23 percent of electric power (EIA 2004 data), supplying heat to more than 60 million households and providing more than 40 percent of all primary energy for industrial use. It is a heat and power source for major industries including iron and steel, glass, food processing, paper, metals fabrication, textiles, rubber and plastics. It is an essential building block for the chemical industry and a feedstock for making fertilizer.

Natural gas and oil are used in many products that we use daily—ranging from clothing to computers, medicines, sports equipment, CDs, cosmetics, hospital equipment, carpets, insulation and lightweight parts for cars and airplanes.

Energy demand is rising. Despite expected energy efficiency improvements of 33 percent and renewable energy supply increases of 41 percent, the U.S. Energy Information Administration (EIA) forecasts that, by 2025, petroleum demand will increase by 39 percent and natural gas demand by 34 percent.

EIA also estimates that oil and natural gas will provide nearly two-thirds of the energy consumed in 2025.

MMS and DOE forecast that without expanded access beyond the Central and Western Gulf of Mexico, the growth in deepwater production will not be able to offset declines in shallow-water production for more than a few years.

In the past two years, higher energy prices have slowed U.S. economic growth by 0.5 to 1.0 percent (based on pre-hurricane prices). More than 2.8 million U.S. manufacturing jobs have been lost since 2000. Since 2002, 36 percent of the U.S. fertilizer industry—which depends on natural gas—has been shut down or mothballed. Farmers paid \$6 billion more for energy in 2003 and 2004.

The U.S. chemical industry has been especially hard hit by high natural gas prices since it relies on natural gas as a feedstock. Its natural gas costs increased by \$10 billion since 2003. And, \$40 billion in business has been lost to overseas com-

petitors who pay less for natural gas. Chemical companies closed 70 facilities in the United States in 2004 and have tagged at least 40 more for shutdown. Of the 120 chemical plants being built around the world with price tags of \$1 billion or more, only one is in the United States.

IMPORTANCE OF GULF OF MEXICO

The Gulf of Mexico OCS has been producing oil and natural gas since the 1950s. The OCS is a vital part of the nation's energy infrastructure. More than 45,000 people are directly employed by OCS operations. There are about 4,000 OCS production facilities and 33,000 miles of pipelines.

Recent advances in exploration and production technologies have opened new frontiers in the deepwater Gulf of Mexico. Deepwater oil and gas production has offset declining production from older, shallower OCS wells. In 2003 (which is the latest year for natural gas statistics), the Gulf of Mexico OCS contributed 29 percent of the oil produced in the United States and 22 percent of domestic natural gas production.

The Minerals Management Service (MMS), part of the Department of the Interior, has called deepwater oil and natural gas development in the Gulf of Mexico "a workhorse for U.S. domestic oil and gas production." According to MMS, offshore deepwater oil production rose 535 percent between 1995 and 2002 and deepwater natural gas production rose 620 percent over those same years.

However, virtually all of the oil and natural gas produced from the OCS is from the Central and Western sections of the Gulf of Mexico, which played a key role in supplying growing demand for clean-burning natural gas. The 1.5 million barrels per day (MMB/D) of oil from the Central and Western Gulf of Mexico OCS is equivalent to our imports from Saudi Arabia. The 4.4 trillion cubic feet (Tcf) produced annually from the Central and Western Gulf of Mexico OCS is enough natural gas to meet more than 80 percent of the electric power sector's consumption of natural gas.

THE OUTER CONTINENTAL SHELF

The OCS is intended to meet many uses that sustain the nation, including minerals development, fishing, shipping and other uses. However, the Outer Continental Shelf Lands Act (OCSLA) explicitly recognizes the importance of OCS oil and natural gas production.

The OCSLA declares that it is "... the policy of the United States that ... the Outer Continental Shelf is a vital national resource reserve held by the federal government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs."

Further, amendments to the OCSLA in 1978 found that "... increasing reliance on imported oil is not inevitable, but is rather subject to significant reduction by increasing the development of domestic sources of energy supplies ..."

Limits on development (through Congressional and administrative moratoria) prevent exploration and production in most of the Eastern Gulf of Mexico and the entire Atlantic and Pacific OCS. That means almost 90 percent of the OCS acreage off the lower 48 states is off limits to energy development.

There are about 300 Tcf of natural gas and more than 50 billion barrels of oil yet to be discovered on the lower 48 OCS. This is enough oil to maintain current oil production (based on 2003 lower 48 OCS) for 87 years and current natural gas production for 68 years.

That is enough oil to produce gasoline for 116 million cars and heating oil for 47 million homes for 15 years.

It is enough oil to replace current imports from the Persian Gulf for 59 years. It is enough natural gas to heat 75 million homes for 60 years, or to supply current industrial and commercial needs for 29 years or to supply current electricity generating needs for 55 years. And, that is before the Alaska OCS is considered with additional resources of 122 Tcf of natural gas and 25 billion barrels of oil.

Thus, the undiscovered resources on the federal OCS that could be recovered with today's technology is estimated at 420 Tcf of natural gas and 77 billion barrels of oil. For perspective, that is equivalent to the oil resources of Canada and Mexico combined and almost 3 times the natural gas resources of these two countries.

Yet, these estimates may be conservative since these areas are largely unexplored and these estimates have benefited from the use of new seismic and computer modeling technology. Generally, the more an area is explored, the more its resource estimates grow.

For example, the U.S. Geological Survey (USGS) estimates of undiscovered oil resources for the Central and Western Gulf of Mexico increased from 6.32 billion bar-

rels of oil in 1995 to 33.39 billion barrels of oil in 2003—an increase of more than 400 percent. And, USGS estimates of undiscovered natural gas resources in the Central and Western Gulf of Mexico increased from 88.1 Tcf to 180.2 Tcf over the same time period—an increase of 104 percent.

THE NEXT 5-YEAR PLAN

U.S. energy policy has not sufficiently emphasized the importance of developing domestic oil and natural gas supplies, which are essential to our economic growth and our energy security. Speaking of natural gas, the congressional Joint Economic Committee has pointed out that U.S. policy has encouraged the use of this clean-burning fuel, while discouraging the development of new supplies—and approach it called “a recipe for problems.”

The next 5-year plan can take an important step to address U.S. consumers’ future energy needs. It should provide for expanded OCS leasing, including:

- Opening the remaining Sale 181 area—an area with substantial energy resource potential and access to existing infrastructure that could help speed delivery to energy users.
- Providing flexibility for future inclusion of areas where development is currently prohibited should they be opened to development in the future. For example, the Eastern Gulf of Mexico is expected to hold significant resources (the National Petroleum Council estimated 25 Tcf of natural gas based on existing, but limited, data).

Around the world, virtually every other country with oil and gas resources is promoting investment in and developing their offshore resources.

If the United States continues to reject opportunities to develop domestic offshore energy resources, U.S. consumers and businesses will suffer the consequences. slower economic growth, higher energy prices, reduced competitiveness vis-a-vis overseas manufacturers and continued job losses.

THE DOMENICI-BINGAMAN PROPOSAL

We applaud the legislation introduced by Senators Domenici, Bingaman and others that would instruct the Secretary of the Interior to develop an oil and gas leasing program for Lease Area 181 100 miles off the Florida Coast and West of the Military Mission Line. Approval of this measure would go a long way toward increasing much-needed supplies of oil and natural gas, and we look forward to working with the Senators in this important endeavor.

We do believe, however, that the northern segment commonly known as “the stovepipe” should to be included in the area to be made available for leasing, as should other areas outside the Gulf of Mexico. We hope that as this bill makes its way through the legislative process, members of Congress will see fit to include such areas. We also believe the bill should address a fair and equitable sharing of offshore revenues with producing states. Some states want to develop their resources to reduce our dependence on foreign energy, and federal policies should encourage them, not hinder them.

We are heartened by the bipartisan nature of this effort. It is a strong indication that Americans are increasingly recognizing the need for greater diversification of our nation’s energy supplies, as well as appreciating industry’s well-established record for producing energy from offshore areas while protecting the environment.

STATEMENT OF OBIE O’BRIEN, DIRECTOR, GOVERNMENTAL AND REGULATORY AFFAIRS, APACHE CORPORATION

I appreciate this opportunity to add my comments to the record concerning S. 2253 a bill to require the Secretary of the Interior to offer the 181 area of the Gulf of Mexico for oil and gas leasing.

Testimony was presented and images were submitted on February 16, 2006 to the committee that allegedly indicate “. . . extensive oil slicks which appear to emanate from oil platforms . . .” One of the images purported to show an oil slick coming from Apache’s Corporation’s West Delta Platform 104C.

The West Delta 104C platform was operated by Apache Corporation. The image and description of that platform was published on the website of an organization know as Skytruth and purportedly depicts it as the cause of an oil slick. The truth is that the well in question was a natural gas well not an oil well. The truth is that facilities at that location were damaged by Hurricane Katrina but did not cause an oil slick.

As soon as practical after Hurricane Katrina, Apache conducted aggressive and diligent surveys of all platforms in the Gulf Coast area affected by the hurricane to assess the damage and possible environmental impacts caused by the storm. As part of that assessment Apache conducted overhead flights to survey the area. I have attached two photographs of the WD 104C location that were taken during those inspection flights. Although the well did release natural gas after the platform was damaged in the storm (which was the cause of the turbulence that is visible in the photographs), there was no oil slick associated with this incident. As part of our response and monitoring efforts we did observe and report a light sheen on the water, which dissipated with no effect on the environment.

Throughout the aftermath of Hurricane Katrina, Apache worked closely with the United States Coast Guard—which, in turn, worked with the National Oceanic and Atmospheric Administration—and the Mineral Management Service to minimize the storm's effects on the environment and to keep them apprised of our remediation efforts and progress. Debbie Payton, an oceanographer and spokesperson for the NOAA, stated in news media accounts that in response to false and misleading satellite images, such as those on the Skytruth web site which appear to show oil plumes, NOAA and the Coast Guard sent teams to the area and found no evidence of oil plumes coming from platforms or rigs. Ms. Payton added that the dark patches in the satellite images that SkyTruth claims represent oil slicks could actually be caused by any number of things. At this point no one knows what caused the images but it has been proven that they were not the result of an oil slick, as has been alleged.

Apache takes pride in its environmental stewardship and spends tremendous resources each year to operate its platforms and wells in an environmentally responsible manner. Misrepresentations such as those that appear on SkyTruth's website damage Apache's reputation and dishonor the hundreds of employees and contractors who invest thousands of hours each year to produce oil and gas in an environmentally responsible manner.

Thank you again for this opportunity to add my comments for the record.

STATEMENT OF THE INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

The Independent Petroleum Association of America (IPAA) represents over 5,000 producers of domestic oil and natural gas. Independent producers drill 90 percent of the nation's oil wells, produce 85 percent of America's natural gas and 60 percent of domestically produced oil. IPAA appreciates the strong efforts of Senators Domenici and Bingaman and the other cosponsors of S. 2253 in recognizing the need to open a portion of the Sale 181 lease area and encourage the Senate to be even bolder and open the entire region to exploration and production.

Independent producers play an increasingly important role in offshore energy development. Independents now hold 90 percent of the leases in the Gulf of Mexico, including 75 percent of the deepwater leases. IPAA's members are the leaders in providing natural gas and oil from the U.S. waters that are open to exploration and production.

Continued development of the nation's offshore areas is needed to meet the country's demand for energy resources. Unfortunately, only about 10 percent of the nation's Outer Continental Shelf (OCS) areas outside of Alaska are available for our producers to apply the best energy technology in the world. According to resource estimates made by the American Petroleum Institute, if all of the restrictions on America's OCS lands were lifted, the nation could replace oil imports from the Persian Gulf for the next 59 years. If America is to meet its growing demand for oil and natural gas, access to federal offshore areas like Sale 181 is essential.

Although the IPAA supports any effort to open additional areas of the OCS to exploration and production, it does not believe S. 2253 needs to include an arbitrary 100 mile buffer from the State of Florida. The Senate should not reduce the size of the Sale 181 area, but open the entire region for exploration and production. Every other state should not be denied access to the valuable energy resources contained in the Sale 181 area in order to placate the imaginary concerns of a vocal minority in the State of Florida.

Through the use of advanced technology, the offshore oil and natural gas industry has compiled an outstanding record for operating safely in the OCS. In 2002, the National Research Council of the National Academy of Sciences completed a report entitled "Oil in the Sea III" in which it found that from 1985-2001 offshore oil and gas development, including pipelines accounted for only two percent of the volume of oil spilled in North American waters. The NRC report also found that in North America, natural seepage was the single largest source of oil in the water account-

ing for 63 percent of total inputs to the marine environment. The U.S. Coast Guard completed a similar study in 2002 in which it found that between 1971 and 2000, U.S. OCS offshore facilities and pipelines accounted for only two percent of the volume of oil spilled in U.S. waters. Finally, the recently completed U.S. Commission on Ocean Policy, citing figures from the Minerals Management Service, found that 97 percent of OCS spills from 1985-2001 were one barrel of oil or less in volume and that the total volume and number of spills continues to decline. Clearly, the industry continues to improve its environmental and safety record even as world-wide offshore production expands.

The entire Sale 181 area is a vital part of the nation's energy future. The environmentally safe development of urgently needed oil and natural gas supplies through access to the region is a vital component of an effective national energy strategy. The limited offshore region considered in S. 2253 contains an estimated 4.8 trillion cubic feet of natural gas, which can play a critical role in helping America address its energy needs. Finding new natural gas supplies from the Gulf of Mexico is not simply a regional issue. The reserves in the sale area would provide needed oil and natural gas throughout most of the United States. In fact, the impact may be especially significant in the Midwest, where natural gas is used in more than three-fourths of the households and is a major energy source for agriculture and industry.

IPAA is pleased the committee is engaged in a serious effort to increase access to America's offshore energy resources. Providing access to the Sale 181 area is critical and requires making new policy choices with regard to offshore federal lands. Offshore oil and gas development has and can occur while accelerating the protection and improvement of the environment, and increase America's energy security.

IPAA stands ready to work with the committee to address the nation's energy needs and looks forward to working on expanding access to the Sale 181 area.

STATEMENT OF THE AMERICAN FOREST & PAPER ASSOCIATION

INTRODUCTION

The American Forest & Paper Association (AF&PA) offers the following comments on S. 2253 and the natural gas crisis. S. 2253 will provide short term relief to manufacturers suffering from high natural gas prices and will help restore some measure of balance to America's energy policy. AF&PA is the national trade association of the forest, paper and wood products industry. Our organization represents approximately 250 member companies and related trade associations that grow, harvest, and process wood and wood fiber; manufacture pulp, paper and paperboard from both virgin and recycled fiber; and produce solid wood products.

The U.S. forest products industry is vital to the nation's economy. We employ more than one million people and rank among the top ten manufacturing employers in 42 states with an estimated payroll of more than \$60 billion. Sales of the paper and forest products industry top \$230 billion annually in the U.S. and export markets. We are the world's largest producer of forest products.

Energy is the third largest manufacturing cost for the forest products industry, making up 18 percent of total manufacturing costs for pulp and paper mills—up from 12% just three years ago. Annually, forest products companies purchase about 400 billion cubic feet of natural gas. While today the price of natural gas in the U.S. hovers around \$8 per million BTUs, in the last three months we have seen prices as high as \$15. This increased price for natural gas also puts increased pressure on purchased electricity and the price of chemicals needed for our manufacturing operations. Higher natural gas prices have the additional effects of increased transportation costs, as pulp is sourced from around the world.

Meanwhile, prices in the rest of the world are noticeably lower. For example, the high cost of gas in the U.S. dwarfs gas prices in other countries that have seen much lower prices per million BTUs, such as South America, and Russia, putting our industry at a significant competitive disadvantage. This disadvantage is on top of other competitive disadvantages we face. Our taxes are higher than those of competing nations, and there are unfair trade barriers to the export of our products. The cost of compliance with our nation's environmental laws is directionally higher than the cost for some of the countries with which we compete, and transportation costs are greater than anywhere else around the globe. Government restrictions are also limiting our access to fiber—even though our forestry stock has increased by 39% since 1952. If we cannot successfully address these challenges, the public demand for forest products will increasingly be filled by other nations who do not adhere to our high standards.

The impacts of rising energy prices on the industry have been dramatic. The forest products industry has closed over 232 mills and lost 182,000 jobs (12% of employment) since 2000 when energy prices started a steep rise. High energy costs contributed significantly to these closures/lay-offs. Mills also have suffered supply curtailments.

Ultimately, an adequate supply of energy at a reasonable price is needed for vibrant economic growth.

RECOMMENDATIONS FOR BALANCE OF SUPPLY AND DEMAND

We believe that balance can only be achieved if action is taken in each of the following critical areas:

- 1) Remove federal regulatory barriers preventing new natural gas supply;
- 2) Diversify the nation's energy portfolio through R&D and incentives; and
- 3) Implement conservation and other demand reduction measures.

1) Remove Barriers to Supply of Natural Gas

There are numerous areas in and around the continental U.S. that contain more than enough natural gas to accommodate national demand for years to come. Barriers to accessing these areas should be removed as well as other barriers to increased supply discussed below.

OCS

Lasting relief from high prices for natural gas can mainly be achieved by increasing the supply of natural gas. Federal restrictions currently limit access to offshore natural gas resources in the Pacific, Atlantic, and Eastern Gulf of Mexico Outer Continental Shelf (OCS). AF&PA believes that the OCS is critical to America's energy security. It contains huge, untapped resources of oil and natural gas that are critically important to sustaining our national economic growth and maintaining much-needed jobs in virtually every sector of the economy.

For years OCS development has been limited to the Central and Western Gulf of Mexico. This has been a vital area—supplying almost 30% of the oil produced in the U.S. and about 20% of the natural gas. Nonetheless, Hurricanes Katrina and Rita have reminded us that disruptions in supplies from this area have major national implications affecting residential, commercial and industrial consumers throughout the country. While this area will remain very important, it is clear we must expand access to supplies in other parts of the OCS. Expanded access to new OCS areas is needed to ensure adequate future domestic energy supplies.

The National Petroleum Council estimates that there are approximately 300 TCF of natural gas and more than 50 billion barrels of oil on the OCS off the continental U.S. that can be recovered using existing technology but which has yet to be discovered.

Short Term

Some estimates indicate that Lease 181, a resource rich area in the Gulf of Mexico, might represent 20 percent of the entire Gulf gas production for the next six years. Most importantly, it is an immediate source of supply because the pipeline infrastructure necessary to transport the gas to market is already built and operational in the area. It has substantial energy resource potential and access to existing infrastructure that could help speed delivery to energy users. The oil and gas leasing program outlined in S. 2253 could bring 5 trillion cubic feet of natural gas online in the most expedited manner. We urge Congress to act immediately on this important legislation. It is our best hope for short-term relief from high natural gas prices.

Long Term

AF&PA also supports empowering states to explore and develop new natural gas sources and find ways to increase long-term U.S. production. Specifically, we are in favor of the kind of approach outlined in Senator Lamar Alexander's "Natural Gas Price Reduction Act of 2005," (S. 726), Subtitle E (Chairman Richard Pombo's Ocean State Options Act) of the House Resources Committee's budget reconciliation package and the "Reliable Affordable Natural Gas Energy Reform Act of 2006" (S. 2290) recently introduced by Senators Mark Pryor and John Warner. In these legislative vehicles, states are granted permanent authority to decide whether to pursue energy production off their shores or to extend the ban on development. Further, the proposals take the needs of neighboring states into account when determining the boundaries for gas and oil leases and provide a portion of the revenues to producing states.

Liquefied Natural Gas (LNG)

LNG can play a significant role in increasing supply, but a real increase in LNG imports will take time, and will be a challenge considering the difficulties inherent in siting these facilities. The four existing LNG terminals in the U.S. have announced plans to expand capacity, and a number of new facilities (including both onshore and offshore terminals) are under consideration. Expedited FERC review of these projects will help. Recent advances in liquefaction and transportation technology have brought down the price of processing to a level that is competitive with domestic production. Additional discoveries of natural gas resources are bringing these worldwide resources into the domestic planning horizon. In addition to helping the supply situation, increasing LNG import capacity in the U.S. will also help level out volatility in the market due to the ability of these facilities to quickly ramp up/down production. Barriers to LNG in the Natural Gas Act and FERC regulations need to be reduced or eliminated altogether. The provisions in the Act to expedite LNG siting and expansion should be aggressively implemented. Additional LNG capacity is an important part of the solution, but it will not solve the supply and demand imbalance in the near-term, nor will it be the complete solution.

Alaska Natural Gas Pipeline

Alaska is the third largest gas producing state after Louisiana and Texas. However, supplies cannot reach the lower 48 states. The Alaska Natural Gas Pipeline, a \$20 billion project, has been proposed to fill that need. It is estimated that with construction of the pipeline, 1.5-2.2 TCF per year could reach the lower 48 states, after 2015.

Unconventional Sources of Natural Gas

The U.S. already obtains 7 MCF of gas a year from unconventional sources. The ultimate supply within the continental U.S. may be as much as 760 TCF, according to Advanced Resources International. This is enough to satisfy 35 years of U.S. gas needs at its current rate of consumption. The EIA projects that production of unconventional gas can be increased by 1.2 TCF within the next ten years. Congress should encourage and provide incentives for new technologies to find and tap supplies of these unconventional sources of gas.

2) Diversify the Nation's Energy Portfolio through R&D and Incentives

The price of natural gas has not increased in a vacuum. The prices of other fuel sources (e.g., oil, coal) also have increased, although not to the same extent as natural gas. To ensure an affordable energy supply in the future, we must diversify and increase utilization of all viable energy sources. Increases in the use of other fuels will reduce the demand and price pressure on natural gas.

Renewable Biomass Energy

An important factor in diversification of fuel sources is improving our industry capabilities for energy self-sufficiency, while simultaneously reducing demand for natural gas and imported fossil fuels. The industry works through AF&PA's Agenda 2020 Technology Alliance to support and conduct research, development and deployment (RD&D) that address both of these objectives, with a focus on energy efficiency, energy security, and environmental performance. Through Agenda 2020, AF&PA members partner with DOE, USDA, NSF, other federal agencies and academia on collaborative, pre-competitive RD&D to address both industry and societal needs.

The *Integrated Forest Products Biorefinery (IFPB)* is a key Agenda 2020 technology platform. The IFPB will give industry the ability to make greater use of renewable biomass energy in its processes, while becoming a net producer of renewable electric power, liquid transportation fuels, and other bio-based energy and products. If fully developed and commercialized, the IFPB technologies being pursued by the forest products industry, which include biomass gasification technologies, could produce enormous energy and environmental benefits for the industry and the nation both, including contributing to a diversified, more secure national energy supply. This can be done while co-producing existing product lines.

AF&PA recommends that forest products research and development efforts, including DOE's ITP and commercial biorefinery programs, be fully funded. This research is essential to maximizing energy production from non-fossil fuels and also to the achievement of new manufacturing opportunities for additional products that can help secure the competitive future of the U.S. forest products industry.

3) Conservation and Other Demand Reduction Measures

Continued Aggressive Energy Conservation Campaign

AF&PA supports the Administration's "Easy Ways to Save Energy" Campaign recently announced by Energy Secretary Bodman. The campaign includes actions directed at consumers, businesses and government agencies. We support the comprehensive nature of this campaign, with its recognition that all societal sectors must contribute to conservation efforts.

At least 10 AF&PA member mills have participated in an existing DOE energy saving program, which provided energy assessments for industrial facilities. On average, implementation of the assessments' recommendations has resulted in millions of dollars in savings per mill. The Administration should continue and expand these and the other measures in the campaign.

CONCLUSION

We thank the Committee for its leadership in developing policies that will address the fundamental imbalance in natural gas supply for both the short-term and the long-term. Our nation's economic growth and the ability of U.S. manufacturers to regain their competitiveness can be greatly enhanced by implementation of a strong and balanced energy policy that will reduce natural gas costs for all consumers.

STATEMENT OF SHELL EXPLORATION & PRODUCTION CO.

Shell Exploration & Production appreciates the opportunity to submit testimony before this Senate Energy & Natural Resources Committee legislative hearing. The topic of this hearing could not be more timely given today's energy supply and demand situation.

For the past two years, the market forces of supply and demand have been driving prices up. The U.S. is clearly not self-sufficient in energy, importing more than 60 percent of its raw material from other countries. However, Shell's Exploration & Production (E&P) North American businesses are dedicated to growing the North American energy supply. Our commitment is underpinned by a history of investing billions of dollars every year in the development of future domestic energy sources and defining new frontiers.

Shell plans to spend around \$15 billion dollars globally this year in the upstream part of our business as we focus on integrated gas, unconventional resources and material oil. We are building a tremendous resource base and are on our way to unlocking 13 billion barrels of resources over the next 5 years to meet the ever-growing demand for energy worldwide.

In the U.S. Gulf of Mexico, our exploration strategy is to drill prospects with large potential volumes to high-grade our portfolio and pioneer new plays. Shell is pursuing natural gas prospects in a number of onshore North American basins. It is our goal to build new supply positions by developing both conventional and unconventional gas resources. Today Shell is drilling for new natural gas supplies in the Gulf of Mexico, Washington state, North Dakota, Texas, and the U.S. and Canadian Rockies. In addition, we believe Alaska and its OCS, including the Beaufort Sea, Chukchi Sea and Bristol Bay, hold the potential to yield the large hydrocarbon discoveries needed to become a new core area for Shell, to build our reserves, and to help provide future energy resources for America's growing demand.

Given the sustained high energy demand in the U.S. and globally, the key driver impacting oil and gas prices is supply. Although our company is actively exploring for oil and gas in all the areas in North America currently available, we are doing this with one hand tied behind our back, as most of the Outer Continental Shelf (OCS) is off the table for exploration and development.

Congress must address domestic supply issues, like the limited access to oil and gas exploration off our coastlines. The U.S. Government estimates that there are about 400 trillion cubic feet of natural gas and more than 75 billion barrels of oil yet to be discovered on the OCS. Congress has made a decision to take most of the OCS off the table for exploration and development. However, given the sustained high energy demand in the U.S. and globally, access to these resources over the long-term is imperative.

For this reason, Shell commends Chairman Domenici and Senator Bingaman, as well as Senators Dorgan and Talent, for introducing and holding a hearing on S. 2253. This important bi-partisan legislation would provide access to promising areas in the original Lease Sale 181 area of the Gulf of Mexico. It could potentially result in production of oil and gas resources in areas of the Gulf of Mexico that have not been accessible despite the fact that they are not under moratoria.

It is important to note that these deepwater areas of the Gulf of Mexico are frontier areas for oil and gas exploration. These plays are naturally very challenging with objectives that are either in ultra-deep water, high-temperature and high-pressure and/or poorly imaged seismically. Sufficient acreage is needed to provide adequate running room to shoot seismic and drill wells that will give explorers a better understanding of the geologic plays in the region.

This bill recognizes the importance of making new areas on the OCS available for leasing in order to meet a fundamental need for additional domestic supply. We look forward to working with the Committee to support S. 2253 and expanded access on the OCS. We also want to work with Congress, the Administration and all interested stakeholders on expanded access to OCS resources through the Minerals Management Service 5-Year Plan process.

Today's energy supply and demand situation highlights the need to expand access to offshore oil and gas resources. We encourage the Committee to continue its efforts to make additional areas on the OCS available for future leasing, including some of those that are currently under moratorium. Shell believes that this can be done in a way that ensures industry's impact is minimized, and environmental resources are protected.

Today's energy supply and demand situation highlights the need to expand access to offshore oil and gas resources. We encourage the Committee to continue its efforts to make additional areas on the OCS available for future leasing, including some of those that are currently under moratorium. Shell believes that this can be done in a way that ensures industry's impact is minimized and environmental resources are protected.

If we are to expand the areas in which oil and gas resources may be accessed, the state and local communities that support the oil and gas development should be fairly compensated. Currently, states receive bonus, rental, and royalty income for oil and gas production in waters within their coastal boundaries, and a 27% share of the bonuses, rentals, and royalties paid to the federal government for "8(g)" zone, which is the area lying 3 miles beyond state waters. And even though coastal state resources and infrastructure directly support the generation of bonus, rental and royalty income from production beyond the 8(g) zone, the federal government shares none of that income with the states.

A fair share of the federal income received from offshore oil and gas production should be made available to the coastal states and communities. The present division of income between state and federal governments does not adequately compensate the states for their contribution to the generation of this income. Infrastructure, such as ports, roads and bridges are needed to support OCS development. The working wetlands of the coastal states could also greatly benefit from offshore revenue sharing with states and localities.

Additionally, MMS and state agencies are facing budgets cuts at the same time they are facing increased demands to perform environmental work, monitoring, mitigation, and enforcement. Congress should consider disbursing a portion of bonus, rental and royalty income to federal and state agencies in order to meet some of these requirements.

We look forward to working with the Committee to support these important concepts and other solutions to America's energy needs.